

Old & New Herbal Remedies

A Compilation of Articles from
"Akhand Jyoti"
 Editors: Dr. Pranav Pandya and Shri Shambhudass

Editors: Dr. Pranav Pandya and Shri Shambhudass

English Translation and Compilation by
Dr. Rajani Joshi



Publishers:

Shri Vedmata Gayatri Trust,
Shantikunj, Haridwar,
Uttarakhanda, India
249 411



Visit us: www.awgp.org



Ph. 91-(0)1334-260602/261955



First Edition: 2007



ISBN: 81-8255-022-X



Price: Rs.

Preface

Yoga and Herbal Therapy have become subject matters of common curiosity and pursuit for those caring for sustenance of good health by inexpensive and natural means and also for those who have suffered side-effects of antibiotics or in general, the lacunae of modern science of medicine. While a lot of training courses and dedicated schools on yoga are helping people across the globe, the scientific testing and implementation of herbal therapies are still confined to research labs and few pharmaceutical companies. Ayurveda is known to be the origin of herbal therapeutic science. Most importantly, the fact that its prescription is risk-free and does not generate any negative or suppressive effects on other kinds of medicaments or modes of treatments that might be used simultaneously makes it an excellent complementary mode of healing.

More and more people are getting interested these days in knowing about easy but effective modes of herbal remedies these days. Our major objective in presenting this new book on herbal remedies is to provide useful, authentic and innovative information in this direction. The main focus is laid on the use of Himalayan herbal medicines based on first of its kind research carried out at the Brahmvarchas Research Centre, Shantikunj, Hardwar (India). Thousands of people have been benefited from this therapy and got rid of diseases of different types and severity. Rare knowledge from the scriptures will be presented here.

Dr. Pranav Pandya,
MD (Medicine)

Herbal Remedies

Need & Scope

The world today is in dire need of a system of healthcare that could rescue it from the growing agonies of ailments. When we look around we find that most of the so-called 'progressive and advanced' people are suffering the painful consequences of an artificial life-style and choosing the quick (though short-lived) remedies of Allopathy. The toxic effects of antibiotics and risks of side effects (such as, upsetting the digestive system and sleep, etc) of the synthetic chemicals used in allopathic drugs often put the patients in trouble — even risking his life due to almost lethal side-reactions. Many people these days prefer alternatives to this dominating mode of medication in the modern times. Moreover, the reductionistic approach of modern medical science, to a great extent, has failed to allay or cure varieties of psychosomatic disorders and diseases and abnormalities pertaining to problems of endocrine glands or hormones, while these happen to be alarmingly rising complaints in the urban sections of the society.

The scenario is threatening for the weaker or poorer sections of society. Ignorance, lack of hygiene, malnutrition and uncontrolled population growth, etc add to their pathetic health conditions. Single-tracked approaches of the public healthcare policies that rely solely on Allopathy have been unsuccessful in improving people's well-being even at the level of physical health. The risks of dreaded diseases like AIDS have further worsened the situation.

The modern (allopathic) approach to drug discovery and medication has evolved from the first pharmacopoeia of the Greek physician Galen (AD 129-200). Starting with the Galenic approach it has gradually developed and expanded up to the Genomic approach deploying scientific and observational

methods of the medical sciences and simultaneous research strides in anatomy, physiology, biochemistry, pharmacology, cellular and molecular biology, genetics, biotechnology and medical electronics. However, despite this marvelous progress and amazing expansion, the goal of good health for all appears to be a distant dream as ever. The ever-increasing cost of drug-discovery, testing and manufacture has hindered the *in-toto* reach of modern medicine among the masses. The problems of drug-resistance and hazards of side effects, etc have remained unabated challenge. The lack of solutions for endocrine disorders and psychosomatic diseases has enforced consideration of alternative and complementary approaches.

Several efforts are initiated worldwide in this regard, which include alternative systems of medicine based on ancient sciences.

Herbal Remedies – Origin

The origin of Herbal (Plant) Medicines lies in Ayurveda – the Vedic Science of Medicine. Herbal cure has been integral part of ethno-therapies in several parts of Asia, most prominently in India, China and Sri Lanka.

As Herbal or Plant Medicines are found naturally compatible, risk-free and effective alternatives to synthetic allopathic drugs and antibiotics, scientific research in related areas has expanded significantly since past one decade with special focus on the Indian and Chinese herbs. However, most studies focus on identification and analysis of specific chemicals in the herbs and extraction of these for preparation of medicines. This limits the potential of these natural medicines. For real benefits, the whole herb (plant medicines) and groups of such herbs in natural forms, as prescribed and practised in *Ayurveda* should be used. These offer excellent remedies because of preserving the natural properties of the plant medicines and their synergistic effects.

This book presents Ayurvedic herbal remedies for different kinds of ailments and health disorders that are common complaints in the modern society with special focus on time-tested, authentic preparations that are cost-effective and easy to use in the today's life style. We begin with an outline of reinvestigating this ancient and yet living tradition of Indian science of medicine, which is fast expanding across the globe.

Preventive and holistic approach to healthcare, thorough consideration of the mind body system and synergist use of multiple herbs, natural plant products with respect to patient's physiological and psychological characteristics are among the unique features of Ayurveda.



Ayurveda: Oldest Repository of Herbal, Pharmaceuticals and Therapeutics

Ayurveda also represents one of the outstanding examples of science and technology development in ancient India. The Atharveda (3000-1200 BC) and the treatises by *Charaka*, *Sushruta*, and *Vagbhata* (1000-500 BC) and consequent scriptures provide an elaborate database of Ayurvedic description of symptoms, diseases, diagnostics and therapeutic advice along with detailed descriptions of over 700 plant medicines/herbs.

Interpretations of the scriptures imply that Ayurvedic mode of healing was derived from rich field of sublime knowledge and high quality, comprehensive science of medicine. It is said that, this Vedic knowledge descended (realized through the vision of the *rishis*) with the advent of life on Earth. It is said to have been propounded by Lord Brahma – the Supreme Creator – Himself, and is therefore regarded as originating from eternal knowledge. It is referred in the Vedic literature as a sub-Veda (*upaveda*). Most scholars of Vedic disciplines have recognized it as emanating from Atharva Veda, while a few also cite it as an *upaveda* of the Riga Veda. Both affirm it as a Vedic science of *āyu* (life-span) and hence as the first science of medicine and health.

Maharshi Shushrut and Maharshi Charak are revered as the great *rishis* (vedic sages) who founded Ayurvedic Therapy. They studied, experimented and brought its original knowledge into healing practice for the integrated well-being of the world. Maharshi Shushrut referred it as a primordial science. Similar were the views of Maharshi Charak who also discovered this eternal natural science through inner realization.

He defined it as –

*Hitāhitam Sukham Duḥkhamāyustasya Hitāhitam | Mānañcha
Tachcha Yatroktam Āyurvedaḥ Sa Uchyate |*

Meaning: Ayurveda is the name of that Shastra (Vedic Scripture), which deals with the understanding of the happiness and sorrows, auspicious and unauspicious aspects of life, and which also deciphers and analyzes, in detail, the causes, symptoms and remedies of what is good, suitable and supportive for healing and health.

As the above definition indicates, Ayurvedic approach takes into account all aspects of an individual's life that directly or indirectly affect his physical and mental wellbeing and accordingly provides the benefits of preventive as well as therapeutic health care. The Ayurvedic philosophy regards the (physical) body as a fine-tuned instrument for soul growth bestowed by the Almighty to help an embodied soul to excel in material as well as spiritual realms of life. While it focuses at eliminating the deficiencies, infections and untoward elements from the body and balancing the presence of those elements, which are vital and useful for its harmonious and healthy functioning, it also stresses and incorporates the subtle but prominent role of the mind in influencing the state and activities of the somatic system.

The *Dravyagunavidnyan* which defines structure and properties of all natural substances of plant, animal and mineral origin forms the primary material database. Some *Ayurvedic* texts also provide detailed information on product development and effective drug delivery systems. Specifics are given on the selection of raw materials, the season for collection of specific herbs, and other quality guidelines for herbal and mineral materials. The formulations can be manufactured in a variety of forms including: *Choorna* (powders), *Asava* and *Arista*

(medicated wines), Tablets, Ghana (concentrates), decoctions of many types (*Hima*, *Phant*, *Kadha*), *Siddhatailam* & *Ghrut* (medicated oils and ghee), etc.

Apart from these, several texts and compilations provide extensive information on therapeutic advice (*Chikitsa*) in the form of thousands of multi-herb, multi-functional formulations for every conceivable diagnosis (*Nidaan*). Investigations into the logic of such formulations employing modern bio-informatics tools will certainly provide new insights for future syntheses.

A special branch of *Ayurvedic* pharma-technology^[4, 5] deals with herbo-mineral products such as *Bhasma*, *Sindoor*, and *Parpati* etc. These are made from a wide variety of materials including many metals, gems, and carbonate containing minerals. A wide variety of administration routes / techniques are used, including oral, *lepa* (ointment), *nasya* (nasal), *basti* (medicated enemas), etc.

The *Bhasma* and *Rasayan* methodologies are unique to this indigenous system of medicine and offer a robust technology platform for future disruptive breakthrough technologies. Though the term *Bhasma* appears to signify plain ash obtained by burning a variety of substances, *Bhasma* production is actually a complex multi-step, multi-option process with a diverse array of base materials, process steps, products, and applications. Now, if the desired finished product and the ideal particle size could be identified, it should be possible to develop a modern technology which will take us directly to just the desired finished product, without the use of potentially toxic mercury and arsenic compounds which are present in some *Bhasma* products.

Another distinct feature of *Ayurveda* is the use of *anupan*—an adjuvant, which may enhance drug uptake, and increase the

depth and speed of penetration. A more ancient, unique and comprehensive mode of drug-administration under *Ayurveda* is – nasal, oral and skin-inhalation of herbal/plant medicines through *Yagya*.

As per the scriptural descriptions and the ancient texts/reports on healthcare practices in pre-medieval India, *Ayurveda* appears to have had a head start in many areas. An *Ayurvedic* practitioner has always talked of medicine combinations specific to an individual. There are descriptions of experiments in *Kayakalpa* i.e. a total reversing of the ageing processes. *Vruksha-ayurveda* describes experiments on how to grow red, blue or yellow cotton, which implies an ability to regulate genes for colour producing metabolites. *Ayurveda* also describes *chikitsa* for a variety of metabolic diseases, hormonal regulation, and immune modulation.

Present Scenario:

Last one decade has witnessed a steep rise in the research and use of Alternative and Complementary Medicine in general and Ayurveda and herbal medicines in particular. Several new colleges and/or research centers have opened in the USA, which focus exclusively on Ayurveda. A committee of the members of the House of Lords was constituted in the UK to consider the scientific recognition and expansion of Alternative and Complementary Medicine. A high-level commission in the USA had recommended in favor of the Indian System of Medicine vis-à-vis the modern modes of medical treatment. It has also emphasized at innovative scientific research in the fields of Ayurveda to expand its practice in hospitals, clinics and other healing centres.

As per a survey, in year 2003, the total number of doctors practising Ayurvedic or some other Alternative Therapies in

England was about fifty thousands. The total number of cases cured by them in year 1999 alone was about fifty hundred thousands. These data were presented by the 67th British Parliamentary Select Committee for Science and Technology. According to an independent survey conducted by the BBC a couple of years ago, on an average the British people spend about 1.6 billion pounds per year on Alternative and Complementary Medicines; of which about 50 million pounds are for Ayurveda. The popularity of plant (herbal) medicines is increasing in U.K. at a rapid rate.

Similar progress is recorded in the USA. In its report, a commission headed by the American Health Minister at White House, had reported a few years ago that the choice of most Americans for healing is now shifting from Allopathy to Ayurveda, Yoga and oriental herbal medicines in general. This is a positive sign of increasing popularity of Ayurveda there. This trend was noticed way back in a survey conducted during 1990-1997 in the USA. It showed that the number of persons preferring these modes of therapies had increased from 33.8 to 42.1 percent during this period; the increase in this number for Ayurveda alone had been the sharpest – from 2.5 to 12.1 percent. The average expenditure in the USA on Ayurvedic therapies alone was estimated to be around 27 billion dollars in the year 1997. This had had an impact on the government policies as well. Ayurveda is now considered to be a part of the state-sponsored medical education. There are already some recognized non-government institutes and colleges for Ayurveda teaching and research in America, which are having a growing profile of success.

The risk-free, naturally effective healing science of Ayurveda has also attracted people in other parts of the world, where *yoga* has already been quite popular. Germany is much ahead

of other countries abroad in Ayurvedic research and medical practices. Ayurvedic therapies are also gaining significant place in the healthcare systems in Canada, France, Hongkong, Australia and several Arab countries.

Russia is no exception in this regard. The popularity of Ayurvedic medicine is growing there, too. Ayurvedic therapy of *panchkarma* has been given official recognition by the Government of Russia. The Russian administration has also communicated to the Government of India emphasizing the need to translate and publish the textbooks and other literature on *panchakarma* and other modes of Ayurvedic therapy and medicine in Russian language for disseminating Ayurvedic knowledge, education and healthcare applications in Russia. Similar developments have taken place in some East European countries. Moving a step ahead in the future direction, Poland has initiated several research projects on Ayurveda in collaboration with some governmental and non-governmental institutions of India.

The global recognition and expansion of the ancient Indian Medical Science of Ayurveda vindicates its comprehensive scientific approach that works in total harmony with Nature and takes into account the multiple dimensions of human life. In fact, many facets of this Vedic Science yet remain unexplored in the modern times. Decipherment and thorough study of these would pose challenging research projects with enormous potential benefits. The interdependence of mind and body as considered in Ayurvedic approach is truly remarkable. It has proved its relevance and importance in healing psychosomatic disorders and offers greater hopes and promises to rid the world from the ailing state of people's health. Some laboratories, in India including those at the NCL Pune and IIT Bombay are looking into novel technological modes to reproduce nano-

herbal preparations as per the scriptural guidance. Clinical testing of some Ayurvedic therapies at reputed institutions like the AIIMS, New Delhi have shown excellent results supporting the healing power of this ancient medical science.

The Brahmvarchas Research Centre, Shantikunj Hardwar has taken up the task of verification of the properties of the Himalayan herbs and indigenous preparation of tested drugs. Several of the dry powders prepared in the Shantikunj Pharmacy have been found to have excellent effects. Assigning expiry dates in terms of lifespan of desired effects of the plant/herbal components is a unique contribution of this center. New experiments on *Ayurvedic* decoction therapies have also been carried out here since more than a decade. The decoctions prepared here have been found effective in wide range of diseases – including the most frequent health hazards of today, such as diabetes, hypertension, asthma, etc. The next section describes several remedies using the fresh herbal decoctions.



Decoctions

New and Effective Medication

There are several modes of preparation and therapeutic regimen of medicinal drugs prescribed by Ayurveda. Accordingly the Ayurvedic medicines are classified as – *rasa* or *rasāyanas*, *bhasma*, *cūrṇa* – in the powder categories; *vaṭī* – tablet; *avleha*, *āsava*, *aṛiṣṭa* and *kwātha* – in the syrup and decoction category. Of these, *āsava*, *aṛiṣṭa* and *kwātha* induce quicker healing effects. *Kwātha* (decoction) is found to be the best in terms of effectiveness, minimal risk of side effects, fast remedy and flexibility in composition as per the suitability to the patient. It is prepared from fresh herbs/medicinal plants and administered orally soon after the preparation so there is no risk of adulteration, stalerment or degradation and untoward reactions.

Most of the herbal medicinal plants used in *kwātha* drugs in a large number of diseases can be easily grown in the farms, kitchen gardens or even in pots. Many of them could also be taken as part of daily intakes in appropriate quantities as vital tonics for maintenance of vigorous health and increase in body-stamina and immunity against diseases. It is a pity that we often remain ignorant of such marvelous gifts of Nature and tend to rely more and more on synthetic medicines; ample availability (though at expensive prices) and easy use of these chemically synthesized drugs in tablets, capsules, syrups and intra-venous injectable forms have virtually wiped out the natural healing modes like the Ayurvedic *kwātha* therapy.

As we discussed earlier, several institutions across the world have been engaged in reviving the ancient system of Ayurveda for the past over two decades. Most of these research efforts are focused at phytochemical analysis of herbal medicines and extraction of drug-chemicals from medicinal plants; only some

institutions/labs are reinvestigating the diagnostic aspects and the *bhasma*, *rasa* or *rasāyana*-based medicines and dry herbal powders. The Brahmvarchas Research Centre, Shantikunj, Haridwar has ventured into pioneering research in Ayurvedic *kwātha-chikitsā* (herbal decoction-therapy) in new scientific light. The dedicated research work of the Ayurvedic doctors and scientists (many of whom also happen to be dedicated *sādhakas*) has shown significant benefits of *kwātha-chikitsā*.

The studies of healing effects on a large number of patients treated at this centre by *kwātha* medicines affirm the assertion of the Ayurvedic scriptures that this therapy has the potential of *kayākalp* – complete transformation of the psychosomatic system from a sick, weak or dull state to a healthy, strong and vibrant state. *Kwātha* (or *kāḍhā* in Hindi language) means decoction prepared by boiling fresh (green or dried), cleansed plant-medicines (prescribed parts of the plant, e.g. leaves and/or stem-section, bark-skin, etc) in appropriate combination at controlled temperatures. It is found to be a natural, soft mode of healing which functions in total harmony with the metabolic system, because of the appropriate doses of the specific *kwātha(s)* of one or more medicines as per the disease state and patient's *prakṛati* (natural constitution). Several otherwise intractable and chronic diseases have been cured by this simple therapy within a few weeks to several months time.

The Ayurvedic experts at the Brahmvarchas Research Centre have devised the formulae and methods of preparation through reinvestigation (based on the Ayurvedic scriptures) of the botanical identification, morphology, phytochemical and medicinal properties of a large number of commonly found and rare species of Himalayan and other Indian herbal plants. Excerpts of some of their findings are displayed at the centre along with samples of many herbs for creating mass awareness. One can visit the herbal-samples exhibition hall of the centre. One can also visit their *kāḍhā* lab to have a glance at the method of preparation. Several species of herbal plants can be seen

planted in the herbal gardens of this centre and at Shantikunj Ashram premises, Hardwar. Larger extension of the research facilities and Ayurvedic clinic at Brahmavarchas will be established in the campus of the Dev Sanskriti University, of Gayatri Tererth, Shantikunj. Here we present the introductory information (with relevant details) on *kwātha*-therapy.

Kwātha or *kādhā* is also referred as *śṛata*, *nirpūha* and *juśāndā* in the vedic scriptures. These are counted among “*Panchakaṣāya*” (five ‘subtlized’ medicines). The five members of this group of five types of medicines are — *Kwātha*, *Hima*, *Phāṇṭa*, *Kalka* and *Swaras* (or *arka*). These are relatively lighter in terms of the subtlized concentrated extract of the medicine; for example, *kwātha* is lighter than *swaras*, *kalka* is lighter as compared to *kwātha*, *hima* to *kalka* and *phaṇṭa* to *kalka*. All these forms of medicines are to be drunk orally in a fresh form (preferably no later than an hour after preparation). The method of preparation and the proportion of water account for this difference, as described below (the amount of raw medicine mentioned here corresponds to one dose for an adult patient, on an average):

(1) Kwātha: According to Ayurvedic pharmaceutical instructions – *Pāñīya Śoḍaṣa Guṇaṁ Kśuṇṇe Dravya Pale Kśīpet*; meaning: take about one *pala* (one *pala* = four *tolā* = 48 gms) of *jaukuṭa* (coarsely grinded dry herb or grated cleaned plant-part) medicine of interest. Boil it in sixteen times volume of water (= 16×48 gms in this case) till the boiled decoction is reduced to one-fourth of the original solution. Wait till it cools down up to lukewarm temperature; then filter it through a clean cloth-piece. Needless to say that all utensils should be properly cleaned before use. The filtered decoction is the *kwātha* ready for use.

(2) Hima: In this case 24 gms of the raw medicines’ powder is soaked from the evening till the next day morning in six times volume of water (= 6×24 gms). In the morning, it is crushed

through clean hands, mixed and then filtered through a clean cloth-piece. The filtered *hima* is ready to be drunk instantly.

(3) Phāṇṭa: Water amounting to four times that of the herbal medicine is boiled separately. Then the powdered medicine is soaked in it for sometime (till the powder absorbs maximum amount of water and becomes sufficiently soft). Then the soaked medicine-powder is further triturated (to make a watery paste). It is then filtered and is ready for drinking.

(4) Kalka: Desired amount of dry or wet (herbal/plant) medicine is triturated on the grinding stone by mixing a little amount of water so as to prepare a wet smooth paste. This paste is the *kalka*, which is to be gulped (with slight chewing, if necessary) soon after preparation.

(5) Swaras: It is also called *arka*. It is prepared by crushing the pieces of fresh plant medicines on a grinding stone then taking out the juicy part by pressing the paste so prepared. The juice is filtered before use. Like the other four preparations of *kwātha* group, *swaras* is also used in a fresh state (preferably, instantly after preparation).

There are seven major types of *kwātha* varying in drug-potency; these are — *pāchana*, *dīpana*, *śodhana*, *śamana*, *santaparṇa*, *kledana* and *śoṣaṇa kwātha*. The one described above is the *kledana kwātha*. Milder than this is the *pāchana kwātha*, which is prepared the same way except that the decoction is boiled till the water solution remains half of the original volume. This is recommended in case of high fever, etc to first control the deficiencies or excess in the *doshas* (namely *vāta*, *pitta* and *kapha*); initially, it even aggravates the *doshas* that have caused the ailment in order to make the disease manifestation clearer. Mildest is the *santaparṇa kwātha*, in which the heating of the solution is continued only till it begins to boil. This type of *kwātha* is often used like a general tonic given for balancing the concentration of specific vital elements in the body.

The potency of a drug becomes successively higher in the other types of *kwātha* of a particular medicinal herb/plant. *Śamana Kwātha* is boiled till the solution is reduced to one-eighth of original volume; as the name suggests, it calms (pacifies) the intensity of the disease by suppressing the corresponding *doshas* that are the root-cause. Often, if the symptoms are not confirming the diagnosis, first the *pāchana kwātha* is given; the desired regimen of the *śamana kwātha* starts only after necessary 'ripening' of the specific *doshas*. *Dīpana Kwātha* is a more concentrated decoction, prepared by boiling the medicine's solution till it becomes only one-tenth of the original volume. Depending upon the type and state of the disease, the *dīpana kwātha* of specific herbal/plant medicine(s) is prescribed to cleanse the stomach, enhance appetite and/or regulate metabolism.

Śodhana kwātha is still higher in the potency of the medicine as it is boiled till the solution is reduced to one-twelfth of the original volume. It cleanse out the *mala* (the accumulated dirt inside the body, infections, etc). *Śoṣaṇa kwātha* is the richest extract of the boiled medicines. It is obtained by boiling the herbal/plant medicine's solution (decoction) till only one-sixteenth of the original volume remains. This type of strong *kwātha* destroys the cause(s) of the acute or aggravated ailments/sickness completely.

According to general therapeutic principles of Ayurveda, *pāchana kwātha* should be taken in the night (before sleep); *śamana kwātha* before noon (after breakfast, as guided by the doctor); *dīpana kwātha* is prescribed to be taken late in the afternoon (post lunch). *Santaparṇa* and *śodhana kwāthas* are taken early in the morning (empty stomach).

We introduce below the constitutions and uses of some of *kāḍhās* (*kwāthas*) that are extensively studied and prescribed at the Brahm Varchas Research Centre. These are found to have significant positive healing effects in a number of frequently occurring ailments/diseases and disorders – including those,

which are hereditary and/or chronic in nature and are usually considered incurable through modern medicinal therapies.

In the descriptions below, the unit of measurement is one teaspoon (tsp), which is about 5gms. The quantities of ingredients would proportionally increase or decrease, depending upon the dose. In each case, the constituents are separately crushed (grinded) as coarse powder and then mixed as per the given measurements. The method of preparation will be specified in the next section, together with the constituents of some more *kwāthas*. The common English names and botanical names of the herbs mentioned here are given in the **Table** at the end of the book.

(1) *Kālmegha Kwātha*: It is beneficial in Malaria, Jaundice, Fever, and Liver ailments. Ingredients: *Kālmegha* – 1 tsp, *Kuṭakī*– 1/4 tsp, *Chirāyatā* – 1 tsp, *Giloya*– 1 tsp, *Punarnavā*– 1/2 tsp, *Sārivā*– 1 tsp, *Kālī Jirī*– 1/2 tsp, *Mulahaṭhī*– 1 tsp, *Śarpunkhā*– 1 tsp, *Bāyaviḍanga*– 1/2 tsp, *Khādira* – 1 tsp.

(2) *Vāsā Kwātha*: It is an effective remedy for cough and cold, common cold, acidity, flu, and sinusitis.

Ingredients: *Vāsā*– 1 tsp, *Kaṇṭakārī*– 1 tsp, *Bhārangī*– 1 tsp, *Tejapatra*– 1/2 tsp, *Mulahaṭhī*– 1 tsp, *Tulasī*– 1/2 tsp, *Trikaṭu*– 1/4 tsp, *Chitraka*– 1/4 tsp, *Nausādara* (Ammonia salt)– 1/8 tsp, *Atīsa*– 1/12 tsp, *Tālisa Patra*– 1 tsp, *Gulabanphsā*– 1 tsp. (Note: the coarse powder of a mix of *sonṭha*, *pīpala* and *kālimircha* in equal proportions is called *trikaṭu*).

(3) *Kutaja Kwātha*: It is very effective medicine to cure dysentery, loose motions, and chronic or infection-driven amoebiasis.

Ingredients: *Kūṭaja*– 1 tsp, *Bilva*– 1 tsp, *Kālamegha*– 1/2 tsp, *Trikaṭu*– 1/4 tsp, *Śarpunkhā*– 1/2 tsp, *Vāsā*– 1 tsp, *Nāgarmothā*– 1 tsp, *Mulahaṭhī*– 1/2 tsp, *Chirāyatā*– 1/2 tsp, *Giloya*– 1 tsp, *Dārū Haldī* – 1 tsp, *Haldī* – 1/2 tsp.

(4) *Nirguṇḍi Kwātha*: It is prescribed in *vāta dosha* related problems including joint-pain, rheumatism, arthritis, spondylitis, siatica, etc. This together with small amounts of the gum of *sarai* (*Brosvelia Serreta*) also cures Osteo-arthritis.

Ingredients: *Nirguṇḍi*– 1 tsp, *Sarai Chhāla*– 1/2 tsp, *Nāgarmothā*– 1 tsp, *Aśwagandhā*– 1/2 tsp, *Mulahaṭhī* – 1 tsp, *Saunṭha*– 1/2 tsp, Pure *Gūgala*– 1/5 tsp, *Hinga* (*Asefoetida*)– 1/5 tsp, *Chitraka* – 1/4 tsp. The coarse powder prepared for *vāsā kwātha*– 1 tsp, *Rāsna*– 1/2 tsp, *Mahārāsna*– 1/2 tsp, *Daśamūla*– 1 tsp.

The terms *Mahārāsnā* and *Daśamūla* used here refer to combination of several herbs. Namely, one kg of *Mahārāsnā* consists of 600 gms of *rāsnā* and 12 gms each of the following: *Dhamāsā*, *Balā*, *Eranḍmūla Chhāla*, *Devadāra*, *Kachūra*, *Bacha*, *Vāsā*, *Sonṭha*, *Haraḍa*, *Chavya*, *Nāgarmothā*, *Punarnavā*, *Gīloya*, *Vidhārā*, *Saunḡa*, *Gokśura*, *Aśwagandhā*, *Atīsa*, *Amaltāsa Pulp*, *Śatāvara*, *Chhoṭī Pippali*, *Kaṭa Saraiyyā*, *Dhaniyā*, *Chhoṭī Kanṭakārī*, *Baḍī Kanṭakārī*. The following ten herbs (dry plant medicines) mixed in equal amounts make *Daśamūla*: *Bilva Chhāla*, *Gambhārī Chhāla*, *Pāḍhala Chhāla*, *Araṇī Chhāla*, *Śyonaka Chhāla*, *Śālaparnī*, *Praśniparnī*, Small *Kanṭakārī*, Big *Kanṭakārī*, *Gokśura*.

(5) *Aśwagandhā Kwātha*: It is supposed to be an excellent tonic for enhancing physical and mental vigor. It helps eliminate fatigue and induce vibrant freshness.

Ingredients: *Aśwagandhā*– 1/2 tsp, *Mulahaṭhī*– 1 tsp, *Vidārīkanda*– 2 tsp, *Vidhārā*– 1 tsp, *Gokśaru*– 1 tsp, *Nāgarmothā*– 1 tsp, *Daśamūla*– 1 tsp, *Śatāvara*– 1 tsp.

(6) *Saraswati Panchak Kwātha*: It is an excellent brain tonic for the students, teachers, writers and others occupied mainly with mental work. The usually prescribed doses are – 1 tsp twice a day for the children; and 20 ml twice a day for the adults. It should be taken in the morning and in the evening. *Saraswati*

Panchak may also be used in dry powder form; 1/4 tsp (for the children) and 1 tsp (for the adults) of the powder should be taken each time with milk, honey or *ghee* and sugar. It is notable that its composition (described below) was suggested by noted seer sage Pandit Shriram Sharma himself. Ingredients: *Brāhmī*– 1 tsp, *Śankhapuṣpī*– 1 tsp, *Mīṭhī* (sweet) *Bacha*– 1 tsp, *Gorakhamuṇḍī*– 1 tsp, *Śatāvara* – 1 tsp.

(7) *Triphalā Kwātha*: It is an effective natural medicine against constipation and some other problems of the digestive system. The proportion of *Sanāya-leaf* and *Amaltāsa* (or *Ānvlā*, as the case be,) may vary according to the extent and type of disease. Ingredients: *Haraḍa*– 1 tsp, *Baheḍā*– 1 tsp, *Sanāya-leaf*– 2 tsp, *Ānwalā*– 1 tsp. One tsp of *Amaltāsa*-pulp should be used instead of *Ānwalā* for people residing at cold places (e.g. on the hills) or people suffering from arthritis, joints-pain or prone to sour throat, cold, etc.

(8) *Asoka Kwātha*: It is prescribed to heal leucorrhoea and several gynaecological diseases. Ingredients: *Asoka*– 1 tsp, *Lodhra*– 1 tsp, *Aśwagandhā*– 1 tsp, *Nāgarmothā*– 1 tsp, *Śatāvara*– 1/2 tsp, *Mulahaṭhī*– 1 tsp, *Neem Chhāla*– 1/2 tsp, *Ulaṭa Kambal*– 1 tsp, *Giloya*– 1 tsp, *Padmākha*– 1 tsp, *Khūnkhārābā*– 200 mg.

(9) *Kancanāra Kwātha*: If taken with appropriate diet restriction as per the advice of the Ayurvedic doctors, this eliminates disorders of thyroid and thus relieves one of the problems of hypothyroidism, goiter etc. Ingredients: *Kancanāra Chhāla*– 2 tsp, *Śarpunkhā*– 1 tsp, *Giloya*– 2 tsp, *Punarnavā*– 1 tsp, *Bhārāngī*– 1 tsp, *Asoka*– 1 tsp, *Arjuna*– 1 tsp, *Varūṇa* – 1 tsp, *Aśwagandhā*– 1/2 tsp, *Sārivā*– 1 tsp, *Śatāvara* – 1 tsp, *Kāyaphala*– 1 tsp.

Method of Preparation: The method of preparing the *kwāthas* described above is similar to that for most other types of herbal decoctions. Clean it and then grind to make a coarse powder of each of the constituent herb/plant medicine. If these are to

be used for several days, the dry powders thus prepared may be kept in airtight boxes.

While preparing the *kwātha*, mix the powders as per the prescribed proportions for a given measure of the dose. If the above-mentioned amounts are to be used, soak the mixture in about three-quarter to one liter of water for a whole night. Boil it on mild fire in the morning till only about 300 milliliter of the (concentrated) solution is left. In general, the amount of water should be about 16 times the weight of the mixed coarse powder of the medicine(s); it should be boiled – after soaking the powder for at least 8-10 hours till the solution is concentrated up to one-fourth of its initial amount. Usually, about 48 gm of the herbal powder is used in one dose for an adult. The quantity for a child above 8 years is about half of that for an adult. However, the dose could vary as per the state of the disease and the natural constituent (*prakṛati*); it should best be as per the recommendation of the Ayurvedic doctor.

As far as possible, *kwātha* should be taken fresh – once it cools down to a drinkable temperature. The *kwātha* prepared in the morning may be taken in the afternoon or till early evening; or one prepared in the night is suitable till morning, provided it does not become sour or is spoiled due to heat (e.g. in summer). *Kwātha* should not be used if its original color or smell (in the fresh state) changes or there appears some scum or foam in it; such a spoiled decoction is toxic. In its fresh state its medicinal effects are like nectar. However, it should also be noted that once it cools down, a *kwātha* should not be boiled again because such a decoction is described in the Ayurvedic scriptures as ‘poisonous’. “*Śrataśītaṁ Punastaptaṁ Toyam Viṣasamaṁ Bhavet | Niryyuhoapi Tathāśītaḥ Punastapto Viṣopamaḥ |*” Meaning: Once boiled and cooled, water would be undrinkable (of no health-value) if boiled again. Similarly, a well-prepared and cooled *kwātha* would become a ‘toxin’ if re-boiled.

One should not drink water for about an hour after taking the *kāḍhā* (*kwātha*); eating anything should also be avoided in this period. The best time to take this Ayurvedic Medicine (*kwātha*) is in the morning; or after the *āhara rasa* is fully processed, that means – about two to three hours after meal. Some constituent herbs and therefore their *kwāthas* are bitter in taste; if it is not possible for the patient to drink it as it is, then some honey or sugarcane-treacle could be mixed in minimal amounts. The amount of honey should be not be more than about one-fourth that of the medicine in the *kwātha* in case of the diseases due to *kapha dosha*; one-eighth in those of *pitta dosha* and one-sixteenth in *vāta dosha*. The limits for *vāta* and *kapha dosha* cases would be interchanged if *miṣrī* (sugar crystal) or molasses are used in place of honey. At times about 1 to 4 gm of asafetida, rock salt, cumin-seeds, black pepper, *trikaṭu*, *gūgal*, or *saunṭha*, etc are also advised to be mixed in some *kwāthas*. If taken regularly as per the Ayurvedic doctor's prescriptions and under the diet restrictions and other disciplines, as advised by him/her, the *kwāthas* indeed prove to be magical natural medicines that eliminate the disease from roots and heal the patients without any side effects. They also induce vigorous healthy effects in the mind-body system.



Decoctions to Cure Common Health Problems

K*wātha* or decoction therapy appears to be very simple and domestic type of remedy in terms of its mode of preparation and use. However, deeper investigations of the experts of herbal medicine and Ayurveda are clearly reflected in its excellent healing effects without any risk or side-effects. It is therefore often referred as “Simple Cure for Complex Diseases”. In the earlier sections we looked at the fundamentals of herbal decoction therapy, general methods of preparations of *kwātha*, and the ingredients and mode of use of nine important types of herbal *kwāthas*. Here we present the constituents and methods of preparation and use of special Ayurvedic decoctions for treatment of some major types of diseases.

1. *Kwātha* for Curing the Diseases due to *Vāt Doṣa*

Its ingredients are: (1) *Rāsnā* leafs– 200 gms (2) *Vāsā*– 50 gms, (3) *Erandmūla Chhāla*– 50 gms, (4) *Devdāra*– 50 gms, (5) *Nāgarmothā* – 50 gms, (6) *Punarnavā*– 50 gms, (7) *Giloya*– 50 gms, (8) *Amaltāsa Pulp*– 50gm, (9) *Śatāvara*– 50gm, (10) *Aśwagandhā*– 50gm, (11) *Atīsa*– 50gm, (12) small *Gokṣāru*– 50gm, (13) *Vidhārā*– 50 gms, (14) *Saufa*– 50gm, (15) *Kaṭa Saraiyyā*– 50gm, (16) Small *Kanṭakārī*– 50gm, (17) Big *Kanṭakārī*– 50 gms, (18) *Dhaniyā*– 50gm, (19) *Chhoṭī Pippali*– 50gm, (20) *Sonṭha*– 50gm, (21) *Haraḍa*– 50 gm, (22) *Chavya*– 50gm, (23) *Bacha*, (24) *Kachūra*– 50gm, (25) *Balā* root – 50gm, (26) *Dhamāsā*– 50gm, (27) *Daśamūla*– 100gm, (28) *Bṛahat Vāt Chintāmaṇi* or *Yogendra Rasa*– 1gm (29) *Bṛahat Śūtaśekhara Rasa*– 1gm (30) *Muktā Piṣṭi*– 2gm (31) *Prabāla Piṣṭi*– 4gm.

Method of preparation and Use: Take the herbs (plant medicines) listed in Sr. No. (1) to (27) above in prescribed quantities and make a coarse powder of all. For a dose of one day – soak about 5 to 6 teaspoon (about 30gm) of this mixed

powder in half-liter water, a night before. Warm up this solution of soaked herbal mixture on mild heat (on feeble flame of the gas burner for instance,) till it boils.... Stir the solution from time to time and continue the steady heating till it concentrates to about one-fourth of the original volume. After this, put off the burner (heater) and let it cool naturally to normal drinkable temperature. Then filter out carefully – with the help of a clean thin cloth piece – the coarse particles, if any. The filtered solution (decoction) is now ready for use. An average dose for an adult patient is: half of this decoction in the morning around 8 to 9 am and remaining half in the afternoon, sometime between 4 to 6pm.

Also mix the above mentioned quantities of herbal drugs listed in serial numbers (28) to (31) together and grind into very fine powder using a *kharal* (hand grinder made up of smooth stone). Divide the powder in 15 equal parts and keep in separate *puḍiyās* (In the terminology of Ayurvedic drug regimen, “*puḍiyā*” refers to small amount folded in a piece of paper). One of these is to be gulped or eaten with honey in the morning and one in the evening soon after having a dose of the *kwātha*. Having this powder enhances the patient’s vitality and helps intensifying the remedial effects of the *kwātha*.

Those suffering from the *vāta-dosha* diseases like sciatica or backache are advised also to eat the *catanī* (paste made by grinding) of 21 green leafs of *pārijāta* (night jasmine) everyday for quicker relief. The additional recommendation for those suffering from *vāta doṣa* related problems (e.g. joints-pain, rheumatic swelling and pain, sciatica, etc) in the portion below the waist is — to drink 1 to 5 teaspoon of castor oil in the night. This is generally mixed in warm water or milk. The amount should be kept to the minimum possible – which is sufficient in causing loose-motions. It helps cleansing the stomach and thus maximizes the medicinal effects of the *kwātha*. Use of castor oil should be stopped if loose-motions continue for two days or so.

This *kwātha* is an excellent remedy against the diseases caused by excess of *vāta* – especially in rheumatoid arthritis, facial paralysis, paralysis, ailments of bones due to lubricant imbalance or general pain in bones, joints-pain, pain in thighs, body-tremors, shoulder-pain or pain between shoulder and elbow, backache, rheumatism, arthritis, stiffness, spondylitis and sciatica. It is also an effective medicine prescribed against hysteria, urinary disorders, amenorrhea, dysmenorrhea, and Diuretic ailments. At times, some blood or dietary infections also contribute to or aggravate some of the above diseases of *vāta doṣa*. Therefore, at times some other herbs are also included along with *rāsna* in this *kwātha*; depending upon the cause and nature of such ailments, *chūrṇa* (powder) of appropriate amounts of *ajamoda*, *saunṭha* and *pīpal* is also prescribed with this *kwātha*.

2. *Kwātha* for Restraining High B. P.

High blood pressure or hypertension has become quite a common complaint amongst the elderly as well as the youths in age-group 30+ these days especially in the middle and upper classes of the society. The artificial, comfort-driven and possessive lifestyle, wrong eating habits, hectic routine, extrovert attitudes, stress and polluted environment have contributed the most in the spread of this health hazard almost like an epidemic. If left uncontrolled, high blood pressure leads to heart attack, brain stroke, etc resulting in instant death or making one paralyzed or sick for rest of the life. The allopathic medicines prescribed to prevent the rise in blood pressure are quite effective in general but these need to be continued life-long together with restricted diet, etc; prolonged use of these medicines gives rise to untoward side-effects. Because of these negative effects and risks of the allopathic medicines, an alternative, natural and healthy mode of healing is not only desired by most patients, but is also a necessity today.

Ayurvedic decoction therapy is found very promising in this regard. The preparations investigated and prescribed by the

Ayurvedic experts at Brahmvarchas, Shantikunj, Hardwar, have given excellent remedial benefits to a large number of patients.

We are presenting below the ingredients and method of preparation and use of the *kwātha* which is prepared and usually prescribed (for common complaints of high b. p.) in the Kāḍhā Lab of Brahmvarchas Centre. In case some patients want to use it themselves, they should first get the purity of herbs and suitability of doses verified from an authentic Ayurvedic expert in their locality or contact; they may also visit Brahmvarchas, Shantikunj, Hardwar for practical guidance.

Ingredients: (1) *Brāhmī*– 100gm, (2) *Śankhapuṣpī*– 100gm, (3) *Jaṭāmānṣī*– 200gm (4) *Vijayā*– 200gm, (5) *Kālījirī*– 200gm, (6) *Ajmoda*– 50gm, (7) *Sarpagandhā*– 50gm, (8) Rock Salt– 50gm, (9) *Ajvāyan*– 50gm, (10) *Āka* leaf– 5gm, (11) *Arjuna* – 100gm, (12) *Punarnavā* – 100gm, (13) *Sajjikhāra* (Barilla; ash of some alkaline trees)– 25 gm, (14) *Nausādara* (Ammonia salt)– 0.5gm, (15) *Muktā Piṣṭi*– 1gm (16) *Muktā Śukti*– 2gm, (17) *Rajat Bhasm*– 1gm, (18) *Prabāla Piṣṭi*– 2gm, (19) *Sankha Bhasma*– 2gm, (20) *Kāmdudhā Rasa*– 2gm.

Method of preparation and Use: Take the listed amounts of herbs indicated in (1) to (13) above. Grind them to make coarse powder; mix the powders properly in case grinding is done separately for some herbs. The mixed coarse powder thus obtained should be kept in a clean airtight container of appropriate size. Soak 4 - 5 teaspoons of this powder in about half a liter water overnight; boil it in the morning on mild fire (heat) with proper stirring till the solution concentrates up to one-fourth of its original volume. Filter this decoction when it cools down to normal temperature. This *kwātha* is now ready for use. Half of it should be drunk in the same morning about three hours after meal. The remaining amount should be drunk in the evening/night about two hours after dinner. (Care should be taken that both the meals are had early enough for proper

digestion and natural harmonization of the metabolic cycle. In ideal case, as per Ayurvedic guidelines, lunch should be eaten before 11 am and dinner before 7pm).

Make a very fine powder of the items listed at Sr. No. (14) to (20); each taken in the respective quantities. The *piṣṭis* etc (as listed here and in *kwātha* for *vāta doṣa* related problems) need to be grinded again and again for long hours in a *kharal*. No machine should be used for this purpose. This mixed powder should be packed /wrapped carefully in small folded pieces of papers (*puḍiyās*) containing equal amounts so that one *puḍiyā* could be taken in the morning and one in the evening every day. Apart from being good for mental soothing, this mix of special medicines is suited to eliminate acidity related problems. It is therefore recommended that the morning dose be taken empty stomach and the second dose at around 3 p.m.; (about one hour after taking the first dose of the *kwātha*); these are the timings when acidity causing reactions begin to take place in the body.

The above constitution of the mixed powders amounts to the total dose for about 6 days (that means total 12 doses). Needless to say, that more of such powder and also that for the *kwātha* should be prepared again if the treatment is to be continued further. It is advised that these should be taken in fresh conditions, so no stocking should be done for long time.

Apart from observing the other diet restraints (especially salt reduction, avoidance of fat, etc) as therapeutic or precautionary measures, the patients of high blood pressure should also avoid eating rice or rice-products in the night. In fact their meal in night should be light – say, almost half of that for the lunch. Those, having the complaint of acidity, may also take one or two tablets of the Ayurvedic medicine “*mahāśankhavaṭī*” with water in the morning and in the evening. This drug would help normal functioning of their digestive system.

3. *Kwātha* for Relief from Insomnia

Insomnia or lack of sleep is a psychosomatic disorder, which not only reduces patient's efficiency, but also invites different kinds of other mental and physical health related problems. In most cases, an over-ambitious and self-possessive attitude and/or stressful irregular routine, unbalanced diet and artificial, luxurious life-style are attributed to its occurrence. Patients often start consuming tranquilizers (sleeping tablets) that induce some kind of intoxication and drowsiness rather than regulating the natural cycle of sleep or inducing peaceful 'natural like' sleep even for a few hours. The patient gets used to them and starts consuming more of these, as the initial quantity becomes ineffective after sometime. Thus, instead of healing, these 'medicines' eventually increase the patient's sufferings.

Sometimes, one does not get sleep because of acute pain in some part of the body, fever, indigestion, asthma, cardiac problems, tension or worries due to some adversities, etc. But, sleeplessness of this sort is temporary. Cure of the sickness or improvement in the situation revives the original sleep. But the lack of sleep in case of hypertension and consequent restlessness or due to psychological complications is often unbearable. One takes shelter of sedative medicines in such cases as well. The doctors also often have no other choice but to advise such drugs in general. The following *kwātha* offers an excellent alternative. If taken with prescribed diet restriction under Ayurvedic treatment, it not only uproots insomnia, but also allays and controls the problems of blood pressure, restlessness etc.

Ingredients of the Insomnia Relieving *Kwātha*: *Brāhmī* 5gm, *Śankhapuṣpī* 5gm, *Jaṭāmāṃsi* 10 to 30gm, *Vijayā* 5gm, *Harāḍa* 5gm, *Aśwagandhā* 2.5gm, *Sarpagandhā* 2.5gm, *Khursāni Ajavāin* 1.25gm, *Giloya* 5gm, *Punarnavā* 5gm, *Arjuna* 5gm, *Varūṇa* 2.5gm.

Method of Preparation and Use: Take the above herbal (plant) medicine in the indicated amount (or a multiple of these, maintaining their mutual proportions as per those in the above

mentioned amounts). Grind them to make a coarse powder. This mixed powder may be kept in an airtight container to protect it from moisture. For one day's average dose of the *kwātha*, soak about 5-6 teaspoons (approximately 30 gms) of this mixture in about half-liter water sometime in the evening. Like for the other *kwāthas*, this soaked solution is boiled the next morning on mild heat till it concentrates to one fourth of its original volume. It is then cooled to normal drinking temperature and filtered through a clean cloth piece. The filtered decoction is now ready for use. About half of it should be drunk in the morning itself and the remaining in the late afternoon/early evening. Care should be taken to keep the remaining amount of the *kwātha* protected from light, dust etc, and cool enough so that it remains in good condition till evening.

Diet restraints should be strictly followed in case of insomnia, especially when it is caused due to hypertension. Intake of fried food should be avoided; meal in the night should be very light and devoid of all fats and fried things. Its quantity should also be about half of that in the morning (lunch). Two tablets of the Ayurvedic drug "*Mahāshankhavaṇī*" should be taken with water after each meal. This prevents acidity and heaviness or restlessness due to disturbed metabolism.

Practice of meditation and *japa* provide excellent support in soothing the nervous system and relaxing and rejuvenating the mind-body system. Patients of insomnia must practice these regularly. As such, early morning and evening are the best times, but, as part of remedy against sleeplessness, the following easy practice may be adopted after going to bed. Lie down in the calming posture of "*shavāsana*". The body should be straight but left loose, with hands and legs spread in their natural relaxing positions. Take a slow but deep breath and then exhale all your worries and tensions while breathing out in the same manner. Let the breathing go on at a natural pace thereafter; close your eyes and practice silent (mental) chanting of the Gayatri Mantra or the Mahamritunjaya Mantra; feel as though the subtle vibrations of the mantra are soothing even the tiniest

nerve cells of the brain and the rest of the body. Gradually the pace of chanting should be slowed down and calming current of sleep should be invoked simultaneously in the imagination. This imagination should be coupled with a feeling that the soothing sense of sleep is embracing every part of our being.... Within a few days, this simple practice together with the medicinal effects of the *kwātha* blesses the patient with the boon of good sleep.

4. *Kwātha* Remedy Against Malaria

The following *kwātha* therapy has been found very useful and effective against all kinds of malarial fevers.

Ingredients: *Kālmegha* 10gm, *Chirāyatā* 10gm, *Sāitarā* 10gm, *Padmākha* 5gm, Red *Chandan* 5gm, *Giloya* 10gm, Black Pepper 15 seeds, *Ajavāin* 10gm, small *Haradā* 10gm, Clove 5 pieces, *Khūbakalā* 10gm, Basil leafs 15, Roasted white Alum 5gm, *Artimisia* 10gm, *Neema* leafs 10gm, *Kuṭakī* 5gm, *Bhui Ānvalā* 10gm, *Paṭola* leafs 10gm, *Nāgarmothā* 10gm, *Kūṭaja Chhāla* 10gm, *Karanja* 10gm, *Āka* leaf 2gm.

Method of Preparation and Use: Same as that described earlier, except that here only 4-5 teaspoon (approx. 25gm) of the coarse powder of these constituents is to be used.

In case of severity, one teaspoon of very fine dry powder of these medicines should also be eaten with water in addition to the *kwātha* in the morning and in the evening. This fine powder (*churnā*) is obtained by thorough grinding of the coarse mixture on a hand grinder or on a *kharal* made up of smooth stone and then sifting with the help of a clean, dry, thin cloth piece.

The following remedy is also found very effective in preventing Malaria at the initial stage itself. Minutes before the onset of high fever, the patient feels cold and shivering. At this moment, he should be given a tiny drop of milk of *Āka* mixed in one teaspoon of *ghee* or butter; this medicine works like an antidote because milk of *Āka* suppresses the infection/attack of Malarial

virus. In case the patient feels excessive heat because of this counter reaction, he should be given one or two teaspoons of *ghee* or about 250gm milk with sugar. It should be remembered that these pacifiers (milk or *ghee*) should also be given before the rise in temperature. Milk or *ghee* is not suitable in the state of fever.

5. *Kwātha* to Cure Diseases Due to Cold-effects

This *kwātha* is an effective remedy against chronic as well as allergic bronchitis and similar complaints of accumulated effects of cold.

Ingredients: *Rudantī* 5gm, *Rudravantī* 5gm, *Vāsā* 5gm, *Kaṇṭakārī* 5gm, *Bhāraṅgī* 5gm, *Tejapatra* 2.5gm, *Mulahaṭhī* 5gm, *Trikaṭu* (*saunṭha*, *pīppalī* and black pepper in equal proportions) 1.25gm, *Pittapāpaḍā* 5gm, *Nausādara* (Ammonia salt) 0.6gm, *Daśamūla* 5gm, *Pippalī* *Panchāṅg* 5gm, *Tālisa Patra* 2.5gm, *Chitraka* 5gm, *Gulabanphśā* 5gm, *Atīsa* 0.4gm, *Tulasī* (basil leaves) 2.5gm.

Method of Preparation and Use: About 4-5 teaspoon (~ 30gm) of the coarse powder of the above listed herbal (plant) medicines – in indicated amounts of a constant multiple of these – is used for preparing the *kwātha*. The method of preparations of the decoction and doses are the same as those for the *kwātha* for relief from insomnia.

6. *Kwātha* Remedy Against Bronchial Asthma

This Ayurvedic decoction is an excellent medicine in uprooting Bronchial Asthma, chronic cough and some pulmonary infections. Its ingredients are *Somalatā* 10gm, *Atīsa* 0.1gm, *Nausādara* (Ammonia salt) 0.2gm, *Kaṇṭakārī* 10gm, *Bhāraṅgī* 10gm, *Mulahaṭhī* 10gm, *Trikaṭu* 10gm, *Vāsā* root 5gm, *Rudantī* fruit 10gm, *Rudravantī* 5gm, *Gulabanphśā* 5gm, *Gāzvān* 5gm, *Rāsnā* 5gm.

Method of Preparation and Use: Each of the above listed herbs (or dried plant medicines) in the prescribed amount – or its constant multiple – is first grinded separately into a coarse

powder/paste. Then, the coarse powders thus obtained are mixed thoroughly and packed for use. Everyday 4-5 teaspoons (~25gm) of it are to be used for preparing the *kāḍhā* or *kwāth* (fresh decoction) in a manner similar to that described earlier. Two doses of it are taken everyday – one in the morning (empty stomach) and one in the evening.

As mentioned for the other *kwāthas*, care should be taken to protect the dry powder from moisture and light. It should not be stocked for too long; as some of the plant medicines are most effective only when dried fresh. The evening dose of *kwātha* should be taken when it is still fresh – it should taste and smell as it was in the morning.

Many people find it difficult to prepare the decoction (*kwatha*). They may make a very fine powder of all the twenty medicinal ingredients listed above while using the respective amounts as specified against each. (The amounts could be in some constant multiple of those indicated above; but the same proportion should be retained). The first set of fourteen could be first powdered using any grinder. But the final grinding should be done using a *kharal* (special kind of grinding stone); the fine powder finally obtained should be further filtered using a dry, clean thin cloth. The smooth, filtered powder should be then kept properly in a dry, clean, airtight container. As was mentioned earlier, the above listed amounts would generally be sufficient for complete dose for six days. So the amount of the medicinal powder to be eaten per dose (twice a day) could be calculated accordingly. This much amount should be taken every morning and evening with water or as a paste prepared in the 'juice' of the pulp of *ghṛatakumāri*.

It may be more convenient to take an amount of this powder, which is appropriate for a week's dose and make tiny tablets (each containing the amount of one of the two doses per day) from the paste prepared in the 'juice' of the pulp of *ghṛatakumārī*. This way, the patient will just have to swallow one tablet in the morning and one in the evening. The timings could be those

prescribed for the *kwātha*. They will not have to drink *kwātha* separately or eat the *piṣṭi*'s mixed powder, as all the twenty medicines prescribed above would be present (in appropriate amounts) in the tablet. It should be remembered again that the tablets are to be protected from moisture and exposure to light or air.

In all the types of Ayurvedic decoction-therapies described here – namely, that for curing the diseases and disorders due to *vāta dosha* and that for controlling high blood pressure up to the normal levels – there has been one set of medicines that plays a supportive role. It helps strengthen the effects of the *kwātha*, alleviate common complaints (e.g. acidity) associated with these diseases, and/or induce soothing psychological effects. The constituents of these – viz., the *piṣṭies*, *rasas*, *bhasms*, etc – are very special kinds of Ayurvedic drugs/prescriptions that can be prepared only by experienced experts of Ayurvedic pharmaceuticals. These should be purchased from authentic pharmacies in consultation with some experienced doctors.

It should be noted and remembered for all the other kinds of *kwāthas* as well, that the herbs available in the market need not always be fresh or their condition and quality may not always be useful. Moreover, the doses and methods of use we are citing here are only average estimates for common cases, these may vary from patient to patient depending upon the extent and nature of the disease/disorder and the types of other ailments, deficiencies, if any, ...etc.

If necessary, e.g. because of acute problem or because of patient's psychology, decoction therapy may be continued along with allopathic medicines; however, the duration and dose of the latter should be kept to a minimal level in consultation with both the doctors. In case antibiotics are consumed as part of the latter then the Ayurvedic medicines should be continued for a few weeks (or as per the Ayurvedic expert's advice) even after healing of the ailment; this helps in neutralizing the negative side-effects of the antibiotics.

Herbal Cure of Diabetes & Related Disorders

Sound mind, happy heart and healthy body are interdependent. The founders of Ayurveda had well understood and incorporated this fact in this ancient Indian science of medicine. Today, the luxurious life-style, stressful jobs, environmental pollution, and varieties of complications in the familial and social system have increased the psychosomatic disorders at an alarming rate. The clinical studies and surveys across the globe show hypertension, diabetes, cardiac diseases and spinal problems, muscular spasm and body-pains as common health hazards of this category. Imbalanced, stressful routine, excessively ambitious and cutthroat competition, comfort-driven attitude, smoking, high-calorie lavish food are identified as the major causes of these diseases/disorders.

“Akhand Jyoti” has been providing practical guidance from time to time, on how one could enhance the resistance and vitality levels of the body by some simple practices of scientific spirituality and art of living. Many readers of this Hindi magazine and its translated versions have benefited by adopting these guidelines. However, the need for risk-free, effective and low-cost medicines remains important, given the rising number of patients all over the world.

In view of the limitations of modern medicines in curing and controlling the psychosomatic disorders and diseases, the relevance and importance of herbal/plant medicines as effective alternative and complementary therapies has been recognized by the frontline scientists over the few decades. Extensive research is now going on in several reputed laboratories in these areas. However, the modern, especially the Western experimental methods revolve around identification, extraction and large-scale production of active chemical compounds from

plants and herbs prescribed in Ayurveda and Chinese Scriptures of Medicines. This approach ignores the radical component of Ayurvedic and Chinese medicines, viz., synergistic effects of whole herb/plant, the vital energy of its fresh natural form processed without chemicals, etc.

The Ayurvedic research laboratories at Brahmvarcha Research Centre and Dev Sanskriti Univeristy, Shantikunj Hardwar have taken up the challenge to reinvestigate and prepare herbal/phyto- medicines as per the original Vedic scriptural guidance after confirming the identify, morphology and natural properties of the plants. Apart from the innovative decoction therapy, the researchers here have brought out varieties of medicines for common complaints ranging from headache, body-ache, sprain, common cold, acidity, constipation, diarrhorrea, dysentery, to skin allergies and dandruff. Effective brain-energizers like Sarawasti Panchak, Pragya Peya and multipurpose, season-specific tonics of delicious taste such as Ashwagandha Paak, Chuharra Paak, dry and paste forms of Chyavanpraash, are among their major contributions. Most importantly, the Pharmacy of Shantikunj is the also the first and perhaps the only in the world that cites one-day to several months' expiry dates on each medicine and tonic, as per the optimal period of natural effects of the products.

Yagyopathy lab here is the only scientific lab in the world for *yagya-therapy* research. Pioneering research and therapeutic applications studied here have shown promising role of this unique Vedic method of Ayurvedic healing^[1, 2, 8].

This book presents easy modes of herbal healing of some common diseases, which have been the cause of serious concern since past couple of decades. It is based on the information on theoretical investigation of the ancient scriptures and experimental research findings available at the Brahmvarchas Research Centre's Herbal Lab and the positive outcomes of large-scale therapeutic applications prescribed at the allied hospitals/clinics of the Gayatri Pariwar.

(1) Tablets Against Diabetes:

Ingredients: Turmeric 100gm, *Nirmāli Beeja* 100gm, *Kālamegha* 100gm, *Saptrangī* 100gm, *Giloya* 100gm, *Khas* 100gm, *Lājavanti Beeja* 100gm, *Punarnavā* 100gm, *Śilajita* 100gm, *Bilva* 100gm, bitter *Kuṭha* 100gm, *Kūtaj* 100gm, *Methi* (Fenugreek) 100gm, *Atīsa* 50gm, Powdered stones of Mango and Black Plum (Jamun) 50gm each, *Daru Haldi* 100gm, dried *Kaitha* Pulp 50gm, *Kuṭaki* 100gm, *Vijayā* 50gm, *Khusarani Ajavāin* 25 gm, *Brāhmī* 100gm, *Śankhpuṣpī* 100gm, *Śatāvara* 100gm, *Gorakha Munḍī* 100gm, Sweet *Bacha* 100gm.

The above ingredients should be mixed and grinded well using a *Kharal* (a kind of stone-made hand grinder). Once the powder becomes fine enough it should be further filtered using a clean, thin cloth-piece. Tiny tablets (of the size of one grain of black gram) should be made from its dough prepared by mixing appropriate amounts of *Ghṛatkumāri* in it.

Diabetic patients should take one tablet each with water every day in the morning and evening. They should also observe the diet restrictions as advised by their doctors. These tables alleviate the disorder of glucose homeostatic system and also stimulate the pancreas to regulate the in-vivo production of insulin and thus provide good remedial effect.

(2) Dry Powders and Tablets against High Blood Pressure:

Ingredients: *Brāhmī* 200gm, *Śankhpuṣpī* 100gm, *Jaṭāmansi* 200gm, *Vijayā* 200gm, *Kālījīrī* (bitter) 100gm, *Ajamoda* 50gm, *Sarp Gandhā* 400gm, Rock Salt 25gm, *Ajavāin* 50gm, *Muktā Piṣṭī* 10gm, *Prabāla Piṣṭī* 20gm, Silver *Bhasm* 10gm, *Śankha Bhasm* 50gm, *Nausādar* 10gm, *Arjuna Chhāla* 100gm, *Punarnavā* 100gm, *Sajji Khāra* 10gm, Sweet Soda 15gm.

Mix the above combinations and grind the mixture into fine powder. Filter it through a thin clean cloth. Then either make

small pills of 0.5 gm each and dry them nicely, or put 0.5gm each of this dry power in capsules. Keep the pills or capsules in airtight bottles, protected from heat and moisture. For making pills a paste of the filtered powder is made by adding appropriate amounts of water or Ghratkumari (Ghee Kunvar) in it.

One-one tablet each, with plain water, in the morning and evening is prescribed for adult patients of high BP.

(3) Digestive Tablets:

Ingredients: *Laghu Haritikā* (small *Haraḍa*) 125gm, *Hinga* (asafetida) 2gm, Black Pepper 10gm, Cumin seed 20gm, Rock Salt 40gm, *Sendhā Namaka* 20gm, Edible Soda 10gm, *Amchūra* 100gm, Tartaric Acid 5gm, Sugar 150gm, *Mulahathī* 25gm, Camphor essence 2gm, *Saunf* 20gm, *Anāra dānā* 75gm. If *Anāra dānā* (dry seeds of Pomegranate) is not available, then extra 75gm of *Haraḍa* should be used.

Mix the above ingredients and grind them finely to make a smooth powder. Further filter it using a thin, clean cloth. Make a hard-dough of this powder using water. Tablets of 0.5 gm each should be made and dried in dry air. Capsules could also be prepared as in case of *kwātha* no. (1) above. In case of acidity of gastric complaint or problems in digestion, take one or two of these tasty sour-sweet tablets/capsules with 200gms of lukewarm water. It gives instant relief and helps setting the digestive system right.

(4) Pain Relieving Oils:

Patients of Arthritis, Osteoporosis, and varieties of bone and vertebral column related problems and also the aging people suffer from joints-pain, backache, leg pain, knee pain and what not. Such complaints have become quite common these days. Instead of taking chemically synthesized modern pain killing medicines and spoiling the natural harmony of the physiological system, the Ayurvedic decoction of fresh herbal/plant medicines

should be tried out with appropriate *yoga*-exercises. Massaging with natural herbal oils provides excellent support in relieving or substantially allaying the pains in most cases. We present below the method of preparation of a herbal oil of this kind.

Ingredients: (1) Mustard oil 100gm, (2) Methi beeja (Fenugreek seeds) 10gm, (3) *Dhatura* seed 10gm, (4) Yellow *Kanera* root 10gm, (5) *Kuchalā* seeds 10 gm, (6) Juice of *Āak* root or leafs 10gm, (7) *Bhānga* leafs 4gm, (8) Garlic 4gm, (9) *Ātisa* 3gm, (10) Red Chilly seeds 2gm, (11) *Ajavāin* 3gm, (12) *Bhilava* 5gm, (13) Root of *Kantakārī* (*Bhatkataiyā*) 10gm, (14) *Kālihārī* roots 3gm, (15) *Priyāngu* seeds 3gm, (16) Tobacco 2gm, (17) *Śankhiyā* (to be used only if necessary) 2gm, (18) *Bacha* 5gm, (19) Turmeric 5gm, (20) *Nāgaphani* 10gm, (21) Peppermint essence 5gm, (22) *Ajavāin* (Ajova seed) essence 2gm, (23) Camphor (Bhimseni Kapoor) essence 10gm, (24) Methyl Salicylate 20ml, (25) Turpentine oil 3ml, (26) Eucalyptus oil 3ml.

Method of Preparation and Use: Chop or crush the plant medicines/herbs stated at sr. nos. (2) to (20) into small pieces of the size of a wheat grain. (Note: *Śankhiyā* should be used only in case of acute pains). Then cook them in the mustard oil in mild heat. Stir it for 2-3 minutes with the help of cooking spoon so that nothing burns or sticks on the casserole. The mix is ready. Its heating should be put off when it becomes blackish and the mustard oil begins to smell of burning. Let it cool up to some lukewarm temperature. Then filter it using a clean cloth-piece. The mix on the cloth should be pressed and shaken properly with the help of a spoon so that all the oil and essence of the herbs is squeezed out.

Keep the items listed at (21)-(23) in a steel or glass utensil and stir thoroughly to make a uniform solution. Mix this liquid in the filtered herbal oil (prepared by the above-described method). Then successively dissolve the constituents listed at sr. nos. (24)-(26) in this preparation. The oil is now ready for use. Keep it in a glass bottle using adequate airtight lid.

For stronger remedial and therapeutic effects, about 50 to 100gm of condensed fresh urine of cow and about 50gm liquid extracted from fresh cow dung are also used. These are first boiled in 125gm of mustard oil; the layers deposited on oil during this process are to be removed with help of a spoon. Stop heating when the cow-urine and cow-dung water evaporate completely. Now there will be about 100 gm of refined mustard oil. Let it cool and mix the ingredients listed above at sr. nos. (2)-(20) and repeat the method described above.

This oil is only for external use. As it has some toxicity, it should not be applied in any part above the neck. It should be kept away from the reach of children. As a precaution, it should not be used by pregnant women.

As per Ayurvedic diagnostics, often the pains in body parts, especially joints, back or sciatica types occur due to the ailments of *Vāta*. It is recommended in such cases to drink one spoon of castor oil. It should be continued for 1 or 2 days only. It works like an anima and clears the stomach of the undigested, rotten accumulations that give rise to *vāta*. In case taking castor oil with plain water is not effective, two spoons of this oil should be drank in with a glass of lukewarm milk. In rare cases, even if with two spoons the patient does not get loose motions, the amount may be increased as per the recommendations of Ayurvedic doctors. This remedy should be repeated after a week. Taking the decoctions of *Dashmula* and *Maharasna* renders healthy support in this treatment.



Remedial Tips Against Dental & Oral Diseases

The Vedic scriptures describe seven major components of the oral or mouth system and total sixty-seven types of ailments likely to afflict this system. For example refer the following shlokas of the 66th Chapter titled “Mukharogadhikar” in the diagnostics section of the Ayurvedic scripture “Bhavaprakash”.

*Oṣṭhau Ca Dantmūlāni Dantāijhve Ca Tālu Ca |
Galo Mukhāni Sakalaṁ Saptāṅga Mukhamucyate | |*

Meaning: The roots of the teeth – the gums, the teeth, the tongue, palate, throat, and the portion from vocal cord to the opening of mouth (inclusive), these seven components constitute the *mukha* (mouth) system.

The next shlokas highlights the number of principal types of diseases associated with these seven components.

*Syuraṣṭāvoṣṭhayordantamūle Tu Daṣa Ṣaṭ Tathā |
Danteṣvaṣṭau Ca Jihvayām Pancasyurnava Tāluni | |
Kañthe Twaṣṭādaṣa Proktāstrayaḥ Sarveṣu Ca Smṛatāḥ |
Evaṁ Mukhāmayāḥ Sarve Saptaṣaṣṭīmatā Bhudhaiḥ | |*

Meaning: Eight types of major ailments are likely to afflict the lips, sixteen the gums or roots of the teeth, eight the teeth, five the tongue, nine the palate, eighteen the throat and three the mouth. This way there are a total of sixty-seven types of diseases of the oral (mouth) system.

Clean and healthy mouth (teeth, tongue etc) is the first test of vigorous health. Without it, one can't be regarded as totally

healthy. Smile of the shining stout teeth adds to one's beauty. Bleeding gums and dirty or weakened teeth on the contrary make one sick; apart from suffering the pains, one has to also face people's scorn at times, as people prefer keeping a distance while talking to those having stinking mouths. It is said that mouth is the door for the entrance of diseases. This sounds scientifically logical, as whatever good or bad we eat and drink, first comes in contact with our mouth – the tongue, teeth, throat etc. If there is some infection here, it will get spread in the whole body via blood circulation.

Further, if even a tiny part of what is eaten remains stuck in any component of the mouth, it will soon decompose and give rise to a variety of bacterial diseases. The roots of the teeth and the gums are most vulnerable to such infections. This is why people with dental problems often suffer from gum problems as well. The palate cavity is often neglected while cleaning the mouth. Illness of any component of the mouth system means inviting illness for the whole body system in one form or the other because these components are like sentinels of the body.

Clinical surveys show that over 90% of the dental ailments occur due to unhygienic eating habits and inadequate cleaning of the teeth. Rotten particles stuck in the teeth give rise of bacteria, which eat away important nourishing elements for the teeth including Enamel and Dentine. The growing bacteria populations also attack the delicate veins and nerves in the pulp cavity and the soft insides of the gums. Consequently there are problems like cavities in the teeth, weakening of the teeth, swelling and bleeding of gums, pyorrhea, tooth decay, etc. The saliva of mouth and other stuff eaten or drunk carries the bacterial infections inside the GI track and then to the blood and thus cause various diseases.

Although sixteen types of ailments of the mouth system and their remedies are described in the Ayurvedic scriptures, we shall focus here only on the twelve prominent diseases of the gums and teeth that are quite frequently observed in the present times. These are – (i) *Dantashula* (Toothache/Odontalgia); (ii) *Dantaksharan* or *Dantkrami* (Dental Caries); (iii) *Dantakampa* or Loosening of Teeth (Odontoseisis); (iv) *Dantarakta* (Bleeding/Spongy Gums); (v) *Danta-shitad Roga* (Enamel Deficiency); (vi) *Danta krami* (Dental Cavity) (vii) *Dantamula Vidradhi* or *Masudhon Ka Phoda* (Gum Boil); (viii) *Dantamula Shotha* (Gingivitis); (ix) *Dantapuya* or *Dantveshtaka* (Pyorrhea); (x) *Dantavidradhi* (Dental Alveolar Abscess); (xi) *Danta Raktabisaran* or excessive bleeding from the teeth-roots (Odontorrhagia); (xii) Trench Mouth (Vincent Infection).

We shall first describe them in brief then consider the herbal/ remedies and modes of treatments prescribed in Ayurveda.

(i) *Dantashula* (Toothache/Odontalgia): This is perhaps the most common complaint among people of all age groups and life-styles. There does not seem to be a single cause of this problem. For example, starting or aggravated stage of dental cavity, tooth decay, breaking of tooth, loosening or weakening of tooth, calcium deficiency, aging, etc would also cause toothache of varied intensity. Deposition of dirt (due to decomposition of stuck up food grains, for example) or tarter near the root of a tooth causes acute pain when the bacteria grown there begin to damage the delicate muscles and soft tissues in that region. Pyorrhea also leads to weakening of teeth and sever pain. Many people feel pain in the teeth upon eating or drinking very cold, sour or very hot stuff. Most prominent cause of all these problems and hence of toothache is inadequate cleaning of the teeth.

(ii) *Dantaksharan* or *Dantkrami* (Dental Caries): The dirt, bacterial growth and infections in the teeth-roots and gums lead to further decay of the teeth. Pyorrhea also gives rise to

this problem. Other causes of this disease are the deficiencies of Vitamins A, D, Phosphorus or Calcium. Teeth are broken into small pieces and gums secrete excessive fluids and begin to almost dissolve

(iii) *Dantakampa* or Loosening of Teeth (Odontoseisis): It is an offshoot of excessive weakening of the teeth or swelling or loosening of the gums, mostly due to pyorrhea. At times toxic effects of mercury or some chemically synthesized medicines also cause this problem. Chewing becomes painful and difficult for those suffering from Odontoseisis. They often wound their cheeks and tongue in this attempt.

(iv) *Dantarakta* (Bleeding/Spongy Gums): This is also a common ailment in which with little pressure, or even while brushing or cleaning the mouth, the gums start bleeding. The main cause of this is the dirt between the teeth accumulated due to carelessness in cleaning the teeth. The layer of tarter deposited on the gums also causes this ailment. One must clean them by brush, using toothpaste or toothpowder or by *dataun* of *Neem* tree sticks in the morning and after each meal. The mouth should be cleaned by thorough gargling after eating.

(v) *Danta-shitad Roga* (Enamel Deficiency): Weakening of the protective layer of enamel on the teeth makes the teeth very sensitive; drinking or eating anything cold or warm causes pain in the teeth and the gums. If left untreated, even the touch of a breeze or putting the upper layer of teeth on the lower one becomes unbearable. Deficiency of enamel is an indication of further ailments; especially it is a forewarning of beginning of pyorrhea. It occurs because of infections in the teeth due to unhygienic conditions of the teeth, gums and mouth in general, improper cleaning; or use of toothpastes/powders containing corrosive chemicals.

(vi) ***Danta krami (Dental Cavity)***: As stated earlier, the damaging of teeth and gums usually occurs due to the bacterial infection consequent to decomposition of accumulated food particles etc. The cavity (hole) in a tooth is dangerous as it spreads up to the root of the tooth and destroys it. Moreover, whenever the patient eats anything, some particles get stuck inside the cavity and are difficult to be taken out. This means terrible toothache and risk of further infection and diseases. People often get their cavities filled or replace the tooth by some gold coated or artificial tooth made of some biocompatible substance.

(vii) ***Masudhon Ka Phoda (Gum Boil)***: This is due to infected (or septic) gums. The infected gum becomes red and inflated. It feels flabby by touch and pains unbearably. In aggravated stage one can even see septic boils on it.

(viii) ***Dantamula Shotha (Gingivitis)***: This is a kind of swelling of the gums because of injury or bacterial infection. The initial symptoms are mild pain in the teeth and in the gums. In the extreme stage, even the cheeks pain and appear reddish from inside. If no remedial steps are taken, gradually there would be formation of pus inside the gums which is awfully painful and dangerous, as it may lead to cancer and other diseases of the mouth.

(ix) ***Dantapuya or Dantveshtaka (Pyorrhea)***: It is also called *Paridar* and *Puyasrawa* in Ayurveda in view of its multiple symptoms and consequences. Pyorrhea is perhaps the most dreaded disease of the teeth; next to oral cancer. In spite of amazing advancement in Dental Care, there is no assured treatment of this disease after a certain stage. The patient has to remove the rotten teeth, undergo the treatment of the gums and if the latter are still having the strength and grip, use artificial denture. It is caused by the bacteria growing in the putrid food particles and filth inside the mouth, especially near the roots of the teeth. It happens only to those who keep munching or hogging something or the other all the time and

those who don't care for hygiene of the mouth and teeth (especially the jaws).

Pyorrhea manifests in full swing after several years of its attack. As the accumulation of germs that leads to its spread continues to go in the systemic circulation, there are bound to be several other health hazards. Frequent among these are — appetite loss, indigestion, liver infections, fever, ailments of the eyes, arthritis, etc. The infections carried inside the body of the patients of Pyorrhea could be more severe, giving rise to cardiac problems and cancers.

Children who eat ice creams, chocolates, chewing gum, candy, and other sweets and sleep without cleaning (brushing) their teeth are vulnerable to this disease. If not cleaned properly, some amount of the sticky substances (like chocolate) remains in the teeth, however small this deposition is, its gradual decomposition and accumulation for a few days results in bacterial growth. This is a slow process initially but spreads uncontrollably after a certain stage. One learns about the problem only when the toothache aggravates and other kinds of ailments, especially bleeding of gums manifest.

The habits of drinking very cold or hot water, tea or coffee, keeping ice-cubes in mouth, having bed tea without brushing, sleeping after drinking milk without cleaning the mouth, etc are very harmful for dental health. Malnutrition, deficiency of vitamin B-complex and vitamin C also add to the risk of Pyorrhea. Persistence of constipation and gastric problems also result in accumulation of undigested filth in the body, which hosts a variety of bacteria leading to several ailments, including Pyorrhea.

Three other diseases are:

Dental Alveolar Abscess: In this case an abscess is formed in the periapical tissues; the symptoms of this ailment are characterized by acute inflammation and suppuration.

Odontorrhagia: Profuse bleeding from the socket (in the gum) after removal of a tooth is termed Odontorrhagia. This problem of excessive bleeding from the tooth socket may occur due to germs or specific disorders of the teeth and supporting structures.

Vincent Infection: This is an acute and painful infection of the gums, not contagious, with a stinking odor and painful bleeding of the mouth and gums. It is a kind of Necrotizing Ulcerative Gingivitis.

In the next section we shall look into the herbal/plant medicines against the common ailments of mouth (esp. the dental region) and the methods of their preparation and use as prescribed in ancient texts of Ayurveda and reinvestigated in the modern laboratories of Brahmvarchas Reseach Centre, Shantikunj, Hardwar.

One thing that we all can do from this very moment is to take preventive care. Most important preventive treatment of the common diseases of the mouth is thorough cleansing of the teeth, gum, palate and the tongue. Often people use expensive toothpastes and brush their teeth twice. But they don't know which toothpaste and what type of brush is good for their dental health. The exact method of cleaning; extra care needs to be taken for the jaws; also different types of tooth brushes are required that suit the teeth that are not in line; are uneven in size, tilted, or placed one above the other. Natural herbal brushes (*dātuna*) and toothpastes are easiest to use and most suited for every kind of teeth. We shall look into these and their therapeutic applications in the next few paragraphs.

Remedial Tips: As we discussed earlier pyorrhea is among the most acute and dangerous ailments of teeth. It begins with accumulation of the layers or particles of substances chewed or gulped via mouth, some of which are deposited on the gums, some get stuck in between the teeth (especially the jaws) or at

the root of the teeth near the gums. The chemicals released in the saliva during night also add to these. If not cleaned properly these would rotten inside and become host to a variety of bacteria and germs. Swelling, reddishness or pain of the gums is an alarming warning of this hazard. The layer of dirt spreads on the teeth, they appear yellowish. Mouth begins to stink. These are early symptoms of pyrrheatic ailment. Successively things go worse, the gums begin to bleed with a little pressure or jerk of the toothbrush. Unless one takes proper medicated care and treatments, at early stage there won't be any hope; the gums would go septic with the pus inside them rotting the teeth roots too. The pus further grows and spreads with the bleeding gums risking its entry into the stomach and thus inviting other diseases. After a certain stage there is no complete cure of pyorrhea except taking huge amounts of antibiotics and suffering the negative side effects along with uprooting of the denture.

The Ayurvedic herbal therapies recommended in the scriptures and practiced, though at a limited scale, even today, provide effective cure of pyorrhea and several other dental and oral diseases. The remedies including – doing *yagya* with the herbal preparation consisting of the dry powder of following plant medicines in equal proportions:

Kachūrā or *kapūra kacharī*, *Śītala Chīnī* (Cubebs, Tailed pepper), *Akarkārā*, *Babūla* bark-skin, *Khādira* or *Khaira* bark-skin, *Arimeda* bark-skin, *Śirīṣa* bark-skin, *Neem* (Margosa) bark-skin, *Molaśri*, *Patang*, *Manjiṣṭha*, *Karīla*, root of *Chameli* (Common Jasmine), *Ilāyachi* (Cardamom), *Ratan Jota*, *Sugandhabalā*, *Sārivān*, *Agar*, *Dārū Haldi*, *Padmākha*, *Lavang* (Cloves), *Chandan* (sandalwood), *Tagar*, *Jawāsā*, *Dālachīnī*, *Dhāya Puṣpa*, *Nāgarmothā*, *Mulahaṭhī*, *Khasa*, *Jatāmānsi*, *Āakmūla*, *Lodhra*, *Pippali*, *Rasauta*, leafs of yellow *Kaṭsariyyā*, *Dhamāsa*, *Haldi* (Turmeric), *Ajamoda* or *Ajavāin*, *Apāmarga*, *Asana*, *Kaṭeri*, *Kāyphala*, *Baḍa* bark-skin, *Mājuphala*, leafs of *Menhadī*, *Supārī* (Beetal Nut), *Black Pepper*, *Jāvitri*, *Bāyavidang*, *Punarnavā*,

Bacha, Saun̄tha, and Triphalā [mix of equal proportions of *Ānvalā, Baheḍā* and *Harāḍa*].

Gargling with a decoction of the above listed special anti-pyorrheatic preparation of fifty-three herbs/plant medicines should be taken in that case. Gargling with the dental decoction brings fastest results and is recommended even if the patient is doing the special *yagya* everyday. Preparation of the decoction: Soak 15gm of fine powder of the special herbal preparation in about 250gm of water in the night. Boil it on mild flame in the morning. Continue boiling with proper stirring till the solution concentrates to one-fourth of its original amount. The decoction is now ready. Let it cool down to tepid temperature then filter it using a clean thin cloth. Minute quantities, about 4 *ratti* (*ratti* = approximate weight of eight grains of rice) each of very fine and filtered (through a clean thin cloth) powder of alms and catechu are also mixed in this decoction before using it for gargling. This much amount of decoction is sufficient for one patient for gargling in the morning and evening. The decoction should be retained in the mouth for few minutes during gargling. This way the concentrated essence of the herbal medicines extracted in the decoction would thoroughly reach in between the teeth, the teeth roots and gums and destroy the infections there. In acute stages of the disease, the patient is also advised to drink three-four teaspoons of this decoction (but without the alms) every day.

In any case, as we all know and are taught since childhood, proper cleaning of the teeth, tongue and mouth every morning and after having meals is necessary. In fact this is the most effective preventive cure. Ayurveda and Naturopathy emphasize on preventive measures for maintenance of good health. Teeth in general are among strong components of our body. They would accompany us till the last rites, if a little care were taken to keep them clean. It is a pity that many of us have chosen to neglect the mouth system that guards our health right

at the entrance of our vital food-water intakes. Instead of going by the natural means of cleansing it and taking care of our eating habits, we are charmed by the advertisements of unhealthy foodstuffs, harmful drinks, artificial toothpastes, mouth cleansing solutions, mouth fresheners and what not.

The chemically synthesized toothpastes available in the market, some of which are also suspected of making use of animal products, may not be free of negative side-effects. However, the use of *dātunas* of *Neem* is generally good for every one as it is natural, made up of pieces of tiny thin sticks of the branches of *Neem* (*Margosa*) tree, which is among the best known antibacterial, antipyretic plants. It eliminates the dirt and mucus in and around the teeth, gums and mouth, works as a disinfectant and removes stinking odors from the mouth. It is also important to use a *dātuna* properly. The teeth should be brushed gently and the *dātuna* should be pressed beneath the teeth so that its juice is extracted and spread around the teeth and gums and fills the mouth.

In case people have problems in getting *dātuna* every day, they may make use of (herbal) toothpaste or toothpowder. Use of powdered rock salt, mustard oil, and powders of dry ginger, *sal ammoniac*, dried green-leaf of guava, dry bark-skin of *Molaśri*, *Kāyphala*, *Triphalā* etc is recommended in preparation of good Ayurvedic toothpastes or tooth powders. The Brahmvarchas Research Centre, Shantikunj, Hardwar has brought out an effective formula for herbal toothpowder prepared from natural products after reinvestigation on the type and properties of the herbal / plant medicines referred in the Ayurvedic scriptures. A large number of patients of dental cavities, oral ulcers, spongy (swollen) gums, toothache, stinking mouth, tooth decay and pyorrhea are reported to have been cured by regular use of this tooth powder. It is also of excellent use in preventive care and strengthening of the gums and teeth. It can be obtained from any of the local centers of Gayatri Pariwar across the globe. If the herbal / plant medicines are

available nearby and authenticity of their type and freshness is guaranteed, this toothpowder could also be prepared at home.

Ingredients: *Kapūra sat* (Camphor Essence) 8gms, Peppermint essence 8gms, *Ajavāin sat* (essence/oil of Ajova seeds); *Neelgiri Tela* (Eucalyptus oil) 10ml, *Lavang Tela* (Clove Oil) 10ml; *Geru* (Red Ochre) 1Kg; *Vajradanti* (Barteria Prionitis) 50gm, *Sendha Namaka* (Mineral Salt) 25gm, *Kālimircha* (Black Pepper) 35gm, *Akarkāra* 10gm, *Triphalā* powder 8gm, *Phitakari Phūla* (Puffed Alms) 25gm, *Chhal-Chhabilā* 100gm, *Kāyphala* 200gm, *Ilāyachi* (Cardamom) 10gm; *Mājuphala* 100gm, Clove powder 10gm, *Khaḍiyā* (rock used for writing on slate) powder 100gm; *Tumburu* or *Nepali Dhaniyā* (zanthoxylum alatum) 100gm; *Saunṭha* 5gm, Turmeric powder 10gm; *Harāḍa* 10gm, *Ānvalā* 8gm, *Neem chhāla* 250gm, dry bark skin (*chhāla*) of *Babūla* 25gm, *Molaśrī chhāla* 25gm, *Arimeda chhāla* 25gm, *Akharota* (Walnut) *chhāla* 25gm; *Nagarmotha* 50gm; *Kuchalā* 25gm, *Nila Thothā* 10gm; *Kapūra kacharī* 50gm; *Tejabalā* 100gm, *Śirīṣa chhāla* 100gm, *Vanśalochana* (Bamboo) 100gm.

Method of Preparation: Grind each of the fresh dry herbs named at sixth to thirty-fifth positions in the above list into a fine powder. Filter this powder through a clean diaphanous (very thin) cloth-piece. Combine all of them thoroughly. Mix the quantities listed at first three in a beaker or stainless steel pot separately; this would become a solution. Thoroughly mix it in the fine powder of other herbs. Then pour the prescribed amounts (fourth and fifth positions in the list of ingredients) of Eucalyptus and clove oils in this preparation. Again mix well. The toothpowder is now ready for use. Keep it in an airtight container. It may be noted that blue vitriol should be first powdered and roasted on mild heat before mixing it with other ingredients. This purifies the natural compound. The same process is required for alms. It is also heated on a *tavā* (iron plate for baking) or a *kadhāi* (stew pan) without using any oil or anything else till it puffs up. It should be powdered only after this. *Kuchalā* also needs to be purified. It is roasted or fried

and powdered in a hot state only; once it cools down it becomes so hard that it is difficult to grind it even in an electrical grinder or mixer.

Brush your teeth with it every day in the morning and before going to bed; also gently massage your gums with it every time. This would keep your gums tight and stout and your teeth shining and strong. People of all age groups can use it. About 2gm of this toothpowder is sufficient for one time cleansing of the mouth (teeth) by an adult person.

People suffering from dental/gum ailments should also do gargling using the herbal decoction as described above along with using this toothpaste. Gargling could be done few hours after brushing the teeth, say after having lunch.

The added advantage of Ayurvedic methods of prevention and cure of the mouth components is that some of the ingredients are good remedies for several other infectious diseases, fevers etc. While the antibiotics tend to harm the vital system and body-resistance and induce negative side effects (esp. on the digestive system), the Ayurvedic preparations do just the contrary by providing extra benefits of vigorous health and immunity.



Treatment & Preventive Care of the Eyes

Eyes are regarded as the most delicate organs of the human body. Without these there would be no difference between day and night; there would be darkness everywhere. It would be difficult even to move around and do the routine things without eyesight. Reading and writing become difficult if the eyesight is weakened. Thus, clear eyesight is essential for a happy and progressive life in general. Negligence of necessary hygiene of the eyes, over-straining, infection, injuries and lack of care after minor problems are the common causes of diseases of eyes, many of which result in eventual loss of eyesight.

Like several other health hazards, stress and tensions are found to perturb the normal functioning of the optical activities of the nervous system thus hampering the healthy vision. Anger, mental irritation, tension, frequent over-working on computers at continuous stretches of time, watching television programmes for long hours, reading despite fatigue in eyes or without proper light, etc are among the common causes of straining the optical nerves because of which myopia (narrow sightedness), or long sightedness and other kinds of weakening of eyesight occur.

The following shlokas (no. 1 | 25-27) from the “Uttar Tantra” section of Vedic Treatise “Sushrut Samhita” of Ayurveda also cite these and some other common, but often ignored, causes of problems of the eyes:

*Uṇābhitaptasya Jala Praveśād Durekṣaṇātswapnaviparyyācca |
Prasakta Sanrodan Śoka Kopa Kleśābhigātādātimāithunācca | |
Śuktāranālmakulatthamāṣaṇiṣevaṇādvegavinigrahācca |*

*Swedādrajodharmaniṣevaṇācca Chardervighātādwamanātiyogāt ||
Vāṣpagrahāt Sūkṣmanirīkṣaṇancca Netre Vikārāñjanayanti Doṣāḥ ||*

Meaning: Immediate use of cold water or bathing with it after returning from hot sun or warm environment, excessive sleep in daytime, lack of sleep in night, constant attempt of seeing a distant object or similar straining of eyes to see something blurred or invisibly tiny, frequent crying, worrying, having tension, anger, and uncontrolled sex harm the health of the eyes. Apart from these, constant use of horse beans, acidic and acerbic substances like vinegar, etc, restraining the natural pressure of urination, stools or vomiting, forced control over tears, excessive perspiration, excessive vomiting, smoking, etc increase the *doshas* of *vāta* and give rise to severe problems of eyesight and eye-sickness.

In the “Vyadhisamuddeshiya” Chapter of “Sutra Sthanam” sage Sushrut has classified the etymology and medical nature of ailments of eyes into seven categories and described each of them, their causes, symptoms and therapeutic and preventive measures in detail.

Modern science of medicine also specifies seven major causes or defects and related kinds of diseases of the eyes. These are –
– (i) Hereditary defects such as Albinism and Night Blindness;
(ii) Inborn or congenital defects like – Ptosis (inability to open or hold up the eyelids), unnatural cataract, absence or improper development of the starry sphere or pupil of the eye, or the eyeball; (iii) Physical injuries of the eyes, or of any component of the optical nervous system, injuries due to over-straining or extreme climate (e.g. total or partial blindness, Hypermetropia or Myopia, are likely if one walks on ice, or on a snow mountain for long hours without proper protection); (iv) Internal mechanical injuries or disturbances such as Traumatic Cataract, displacement of eye-lens etc; (v) Parasitic Diseases – ailments caused by viral and other microbe-infections, including conjunctivitis; (vi) (Bio) Chemical aberrations e.g. infection or mutations amounting to changes in blood biochemistry that

would damage the delicate tissues or nerves in the eyes or the optical region and hence cause irreparable damage and blindness; retinal membrane aberrations in certain kinds of diabetes fall in this category; Degenerative changes, e.g. those in the old age also lead to similar negative effects; (vii) New unnatural growth – e.g. tumors in the eyes or eyelids, fibrous growth in eye-membranes, etc.

Even if our eyes are free of or protected from the above kinds of severe ailments, they need not necessarily be totally healthy. Very few of us are seen having absolutely healthy eyes, with sharp and bright eyesight these days. Significantly large number of adults are seen wearing spectacles or contact lenses because of myopia; having the plus numbered glasses to help clear reading or short-range vision is almost becoming natural in the 40+ age-group and so is the problem of cataract among the elderly. What more! Even many of the primary school children are found having weak eyesight; they can't read what the teacher has written on blackboard in their classrooms. Malnutrition, wrong eating habits and choice of food, artificial living style and haphazard routine stand as principal factors responsible for this scenario. Air/ water pollution adds to the negative effects of varied severity and intensity of eyesight problems.

Uncomfortably tight clothing in the name of fashion-fitness, abnormal control of urination and stool against the call of nature, sleeping late in the night and getting up late, having stressful hectic day, smoking, working under artificial light, watching television at continuous stretches, undisciplined sex and genital infections and similar kinds of self-adopted follies invite a variety of health hazards including the untimely weakening of eyes and ophthalmic ailments. Though rarely, dental or oral infections and metabolic disorders also cause or support the latter.

Most of us are aware of the fact that deficiencies of certain vitamins, especially those of vitamin A and D are harmful to

healthy eyesight. Some of us are cautious of eating green leafy vegetables and nourishing food items rich in these vitamins. However, few of us might take care to avoid eating stale food, or so called fast-food, spicy food, acerbic and sour drinks, which lack in or counter the essential healthy substances required in the blood and as a result reduce or suppress healthy blood supply to the body organs. The delicate organs like the eyes are more vulnerable to the ill effects of such unhealthy habits.

The tiny nerve-network inside the eye needs regular and balanced supply of essential (biochemical) and neurotransmission signals. These also need proper rest and should not be overstrained. Noting that there are no physical exercises to counter the strain or wrong postures and modes of reading, writing and other works that require constant and focused use of eyes, precaution and prevention are the best ways of eye-care and maintaining the healthy functioning of this precious sense organ. Apart from being regular in our eating habits and timings and taking healthy nourishing and simple food, we should also pay due attention to the hygiene of our eyes. Eyes need to be washed and cleaned properly with slightly cold water.

Yoga exercise of filling the mouth tight with water to the level of inflating the cheeks and then sprinkling the water in the open eyes to wash them – is also very useful. The sprinkling and washing of the eyes should be continued without blinking them till the water can be easily held in the mouth; the water thrown out after that will be warmer and would have absorbed the excessive heat inside the eyes. This exercise should be repeated two-three times at a stretch in the morning soon after brushing the teeth. The yoga-practice of *jala-neti* along with this exercise also gives a soothing effect to the eyes apart from cleansing the nose and the sinus region. We should also take care not to overstrain our eyes.

In case of weak eyesight without any vision ailment, infection or biochemical problem, Ayurveda guidelines advise washing the eyes in the morning by a *triphalā*-solution; this solution is prepared by soaking *Triphalā* powder in slightly cold water the night before and then filtering it with the help of fine cloth. This simple practice has excellent therapeutic effects if the *Triphalā* powder and its solution is prepared with fresh herbs under the guidance of an authentic Ayurvedic expert.

As per its total approach to mind body system, Ayurveda analyzes the above listed seven categories of the ailments of eyes together with several other factors including the neural network functions, muscles and tissues associated with visual system and the other interconnected organs in the vicinity of the eyes for devising suitable therapeutic measures that are free of all side-effects and risks. The Ayurvedic medicinal scriptures on “Rasa Shastra” by Vagbhattacharya are notable in this context.

For example, the 23rd Chapter of the volume titled “Ras-Ratna” presents analysis of five types of ailments or defects of the eyeball, thirteen types of those associated with the white portion, nine of the joints of the eye, twenty-four of the retina, sixteen of the optical nerves and twenty seven of the interconnecting organs that affect the visual system. Thus ninety-four types of malfunctions or injuries, aberrations or diseases are analyzed here. Whatever the cause may be, to what extent and with what intensity these would manifest depend, as per the Ayurvedic concept, upon the level and state of the three *doshas* (*tridoṣa*) – *vāta*, *pitta* and *kapha* in an individual.

The “Srushut Samhita” (part 1 | 28) attributes ten of the major ailments, defects or disorders of the eyes or the visual system as a whole to the *vāta doṣa*; ten due to the *pitta doṣa*; thirteen due to the *kapha doṣa*. Apart from these it also specifies sixteen types as those due to infections or biochemical aberrations in the blood, two due to congenital factors and twenty-five because

of the defects, weakness or disorders of the neuronal network or brain functions (the latter include paralysis, blood-coagulation, brain hemorrhage, etc). Notably, the ancient scriptures lay stress upon improving and maintaining the vitality and resistance (against diseases) and vigor of the mind-body system to prevent all diseases and weaknesses including those of the eyes. Even in case of accidents or epidemics, those having healthy immune system and elevated vital energy show fast recovery. Recent research studies of modern medical science have also recognized these facts.

Depending upon the type and severity of the problem, the modern therapeutic modes for the eyes range from medicinal eye drops to major surgeries. According to the scriptural guidelines of Ayurveda, the following types of curative measures, if necessary in spite of sincere attempts by the patients for balancing the *tridoṣa* are prescribed: (i) *Seka*: sprinkle or drop a thin stream of medicinal water or melted medicinal ghee (prepared with specific herbal or plant medicines) on or inside the eyes; (ii) *Āscotana*: apply eye drops of specific herbal/plant medicinal solution or finely filtered and cooled decoction; fomentation with lukewarm preparation of herbs/plant medicines knotted in a clean cloth- piece; (iii) *Piṇḍī*: Tying on the eyes a bandage containing finely grinded paste of selected herbs/plant medicines; (iv) *Viḍālaka*: Applying the paste or freshly prepared ointments of prescribed herbs/plant medicines on the eyelids and other outer parts of closed eyes; (v) *Tarpaṇa*: Dipping the eyes for few moments in the especially prepared herbal/plant medicinal water; (vi) *Puṭapāka*: Applying the freshly prepared and cooled gel or syrup-like fine preparation of prescribed herbs/plant medicines inside the eyes in a manner similar to putting collyrium or lamp-black.

In case of blood biochemistry related or internal ailments, specific Ayurvedic medicines are also given orally in the form of dry powder, decoction or tablets. However, apart from all these, the ancient Ayurvedic method of *yagya*-based therapies^[1],

⁸¹ is said to be best and it can be prescribed along with using any of the above-mentioned Ayurvedic or modern medications or modes of treatment. It is also an easy and least expensive mode of treatment provided the patient spends some time (say about forty-minutes or so, on an average).

The advantage of the *yagya*-based therapy is that it is a unique kind of effective inhalation therapy, which, with regular practice of few weeks, begins to rectify (heal) the defects or complexities at the level of nerves and neural functions as well and thus promises cure of even otherwise intractable diseases caused by aberrations or malfunctioning of the nervous system or in some brain-components. The chanting of distinct *mantras* (Vedic Hymns) in special rhythm also has majestic impact on patients' psychology, resistance and vitality. Its promising potential has also been verified in some research and clinical experiments at the *Yagyopathy* Lab of the Brahmavarchas Research Centre of Shantikunj, Hardwar.



Herbal Help to Get Rid of Obesity

Risk of Obesity- Among the host of health hazards faced by the modern society, obesity has become a matter of deep concern. Excessive fat or overweight body not only reduces one's physical beauty and gives a funny appearance, but at times it also hampers one's alacrity and work efficiency. Overweight people feel tired and start panting after a little hard work. More severe are the negative effects of extra fat upon the tiny arteries and blood vessels. Obesity increases the chances of high blood pressure, hypertension, diabetes, asthma, cardiac problems – with high risk of sudden heart-attack or even failure of heart because of arterial block, restlessness, insomnia, hormonal disorders, osteoporosis and related problems of weakening of the bones and the joints, physical disability, etc.

Thus, not only the appearance-conscious or smart people, but also those who care for health and fitness are always keen to maintain their body-weight within healthy limits and try to turn to expensive gymnasiums, diet courses, aerobic exercises and what not. In spite of growing trends of fashionable looks and slim bodies and also of health-awareness, the number of over-weight people and fat-driven diseases is increasing, especially in the urban societies and developed countries. Earlier the over-weight people used to be usually the adults after a certain age. Fatty heftiness was seen rarely among the youths and children and it was mostly because of hereditary factors or utterly lavish eating since childhood. However, these days the incidence of this abnormality seems to have risen in people of all age groups. According to a clinical survey report of 1997, over 30 crore people below 65 years of age are suffering from high obesity throughout the world.

These days many kids are also found suffering from this abnormality. This is because of excessive use of soda-bicarbonate-made cold drinks, and eatables like chocolates, pastries, and cheese. It is also found to be a congenital abnormality because of the chemically synthesized vitamins and medicines consumed by the mother during pregnancy. Youths, who have a stressful routine, are also found having fat on their tummies and the cases of coronary arterial blocks are rising alarmingly among the urban youths in the young age-group 30-45. Comfort based lifestyle, wrong eating and drinking habits, less nourishing but high calorie artificial foods, side effects of medicines, hormonal disturbances, etc are also responsible for this hidden hazard.

Although *yoga* is becoming popular among other methods of keeping fit, people often regard it only as a package of physical exercises that could be practiced at any time in any order. This is a pity. In fact yoga pertains to much deeper folds of life and if its philosophy is also understood and adopted in righteous manner with necessary disciplines, it would ensure physical and mental well-being as well as psychological, intellectual and spiritual evolution. Considering the present context, we may focus only on the yoga-aspects pertaining to physical health. In this regard, as also for overall health of the mind-body system, an ideal routine and food habits suggested under Ayurveda are derived from the philosophy of *yoga*. Before we look into the preventive and remedial modes suggested under Ayurveda to avoid or get rid of obesity, we shall see the characteristics and hazards of obesity defined in the Ayurvedic scriptures.

The Ayurveda Shastras refer to Obesity as *sthaulya roga* or *sthūlatā*. In the section “Sutra Sthanama” 21 | 9 of Charak Samhita describes it as — “The disease in which *meda* – fat, fatty serum (and marrow) and flesh, etc – increases and accumulates in excess on the tummy, buttocks (hips), waist, chest/breasts, arms and muscles of other parts. This growth is

so much that the flesh in some or these ‘inflated’ components makes them heavy and it even hangs freely and shakes randomly while the patient runs, walks moves his body for some work. This also disturbs the metabolism and normal supply of blood and essential (bio)chemicals and thus hinders the health and vigor of these and other components of the body. Excessive eating, or fat-rich heavy food, habit of frequent eating that disturb healthy metabolism, are common causes of this disease”.

If we eat more than what is essential for balanced nutrition of our body in terms of its natural constituent (*prakrati*) and mental-physical work, or if we eat frequently fatty or glucose or hydrocarbon rich substances or high-calorie edibles, these are not decomposed or transformed in the regular metabolic reactions and are thus not utilized in the healthy physiological and biochemical functions and requirements of the body. As a result, these get deposited as excess fat and flesh in those parts of the body that are less exercised or are naturally located and tuned to store the extra fat or flesh. Sometimes this extra accumulation could occur due to disorder of metabolism, which might be triggered by some malfunctioning or unnatural reaction (e.g. side-effects of a medicine or psychological complexity) at the hormonal, genetic, (bio)chemical or physiological level. This excess accumulation is referred as *meda* or *sthaulya* in Ayurveda.

The word “Obesity” of the modern medical science is derived from Latin “Obesus” which literally means – eating more. Here overweight is defined as more than 10% above the average limit, statistically estimated from the ratio of body height and weight.

Accumulation of fat often begins on the tummy because natural stock of ‘*meda*’ lies in the stomach and the intestines; its excessive accumulation spreads disproportionately on the hips, thighs, arms, neck, chest, cheeks, etc with maximum on the tummy and hips, thus deforming the figure of the body and giving it a funny appearance. According to the Ayurveda theory, the

excess of *meda* hinders the normal growth and distribution of all *dhātus* (vital elements, compounds produced or released by metabolism). As a result, bones, muscles, marrow, etc are deprived of adequate nourishment and strength. Weakening of the body components and disruption of some of its normal (healthy) functions naturally reduces the stamina and resistance and invites several other diseases. Even adequate breathing becomes a problem in most cases of obesity. This is why obesity is referred as the root cause of many other diseases and is referred so in Ayurveda Scriptures.

It is counted in Ayurveda among the eight blemishes of the body. The list of these eight negative attributes prominently includes *sthūla* (very fat) and *kṛāśakāya* (very thin) bodies. For example, the *shloka* no. 21 | 1-2 of “Sutra Sthanam” in “Charak Samhita” specifies — “.... *Tatrāsthūla Kṛāśayorbhūya evāpare ninditaviśeṣā bhavanti* |” (Of these, the *sthūla* and *kṛāśakāya* are among the worst. However, as mentioned in the succeeding *shloka*, (cited below) in relative comparison of the two, the thinner fellows are regarded as still better than the fat ones:

Staullyakāśrye varam kāśrye samopakaraṇau hitau |
Yadyubhau vyādhirāgacchetsthūlamevātipīḍyet ||

Meaning: Thinness is much better than obesity because even if both are weak, a very fat person would suffer a disease more than what a very thin would. The average lifetime of a very fat chap is also lesser.

As is generally observed, people might sympathize with a thin chap but would at a first sight laugh at the fat one. The fatter one's body is, the more likely he is to be a subject of fun. Accordingly the scripture further states – “*Kṛāśaḥ sthūlāt pūjītaḥ*” (thinner ones are relatively more respected than the fats).

Indeed health is an integral component of one's personality. Healthy body, brilliant intellect and good character and conduct are the keys to success and prestige. One's recognition and status in the society largely depend upon these factors.

Obesity is criticized not only for its role in making one less efficient, less resistant to diseases or funny in appearance but the scriptures also cite the severity of its consequent diseases and disorders, which have also been listed in the modern studies. Most common and high-risk health hazards that go like hand-in-gloves with obesity are — breathlessness, cardiac problems, high blood pressure and diabetes. Frequent fatigue, loss of efficiency and uncomfortable and laughable physique pulls their morale down and thus in many cases they are also found suffering from inferiority complex, depression and related psychological and neural complications.

At the root of most of the negative consequences of obesity lie the excess accumulation of fats and hydrocarbons that upsets the normal metabolism and thus in Ayurvedic terminology, augments the *tridoshas* (*tridoṣas*) — *vāta*, *pitta* and *kapha*, as per one's natural constitution. Indigestion, constipation, acidity are frequent consequences. Exceptional hunger is also a consequence of increased *vāta* in obesity, which amounts to further increase in patient's body weight. Malfunctioning of the liver and kidney are more dangerous consequences of *pitta* and *vāta doṣas* in prolonged obesity. The problems caused by high *vāta* are also most likely companions of obesity; these include — joint pain, backache, arthritis, sciatica, spondylitis, other problems of the spinal cord, hernia, varicose veins, osteoporosis, etc. The rise in *kapha doṣa* would add to the lethargy of fatty patients; short breaths, snoring, sleep apnea, are also common complaints

in such cases; impotency would be an added risk if this *doṣa* were very high.

Among the well-known hazardous effects of metabolic disorders and disruption of the regular production and supply of vital elements (*dhātus*, in Ayurvedic terminology) because of accumulation of excess fat and flesh are — reduction in useful high density cholesterol (H.D.L.) and increase in the harmful low density cholesterol (L.D.L.), which disturbs the rheology of blood and leads to blood pressure and heart related problems. The increased rigidity of red blood cells, coagulation propensity and inadequate blood flow also enhances the risk of brain stroke etc. Reduction in secretion of several vital hormones like insulin is another severe hazard of obesity, which is being researched all over the world. Deficiency of insulin secretion corresponds to alarming chances of diabetes.

Therefore those desirous of good health and fitness should take necessary measures to prevent obesity along with the other diseases which they might be prone to because of family history, environment and physique, or living style and habits. There is no need to panic or rush for extreme dieting. Only an alertness and discipline are required. Ayurveda and yoga provide you with substantial support in prevention and cure of this problem without taxing your money and peace of mind.

As we all know, the early signs of obesity, except in case of pregnancy, are – gain in weight (above the usual range suitable for one's height) with visible growth of the abdominal region. Rise in appetite, thirst, perspiration, fatigue or sleep above one's normal trait are also definite signs of its onset if coupled with some other symptoms like drowsiness, lethargy, frequent desire to eat something sweet, feeling of swollen throat, stinking sweat, unusual odor of mouth, etc. The overweight of the body puts extra pressure on the knees and toes so these start paining and get swollen at times.

The common causes of obesity as described in “Sutra Sthanam” (21 | 3) of “Charak Samhita” include – consuming heavy (lavish, deep-fried) foods, sweet and oily (rich in fats) dishes, or cold eatables, alcohols and cold drinks; relaxing or sleeping immediately after taking meals; eating frequently. The scripture also cites hereditary factors and certain kinds of brain secretions (*rasa*) as other contributory causes. All of these factors (which have been affirmed by modern health scientists and nutritionists) have become more pronounced now and hence there has been significant rise in occurrence of obesity. Obesity has therefore become a cause of deep concern on the health scenario of urbanized population.

Most of us might be well informed that the frequent and substantial use of cheese, butter, deep-fried spicy foods, chocolates, cakes, ice-creams, pizza, burgers, other fast-food items, pastries, sweets, dry-fruits, coffee, alcoholic and cold drinks should be avoided to minimize the risk of high cholesterol, blood pressure, obesity, etc. But we somehow have got so used to these that unless these affect our health and the doctors warn us we don't restrain ourselves at all. Moreover, the risk is higher in today's life style, as we don't want to do physical work at home and prefer living in as much comfort as possible. What could be worse, the culture of watching TV with munching adds to these negative habits right from childhood! Above all, there are subtler self-invited hazards too! We shall discuss them all in the next issue, where we shall also present some easy to adopt, low-cost, naturally effective remedial and preventive measures available from Ayurvedic knowledge.

Herbal Help:

Most of the causes of obesity and related problems discussed in the last issue can be eliminated or controlled by regular regimen of what one eats and what one does. Proper guidelines are available in healthcare centers and also in popular magazines on nutritious and balanced diet and practical ways to exercise

and keep fit. However, one should be careful about what is really suitable for him or her and how to adopt it.

Excessive dieting or starving in the name of fast without proper guidance of a nutritionists might help weight loss but might also weaken the body and lead to problems like osteoporosis, in the later age because of deficiency of calcium and other vital elements and vitamins. Moreover, this 'fashionable' approach involves risk of disturbing the hormonal system too.

If one is not regular in the exercises, be that *yoga-āsanās*, aerobics or practices taught in gymnasiums, one is most likely to regain the fat and body-weight lost after long efforts. The reason being that most of these (except *yoga-āsanās*, if accompanied by *prāṇāyāmas*) remedies focus only at lessening the accumulated flesh and fat at the exterior of the gross (physical) body. Modern physiotherapies and fitness techniques also use 'liposuction'. In this method, the thick layer of fat in the abdominal region is 'sucked' or 'melted' (and hence excreted by the body with other fluids) by diathermy or some special machines. Similar effects are achieved by isallotherm treatment, deep heat treatment of steam bath, etc. But all these techniques provide only a temporary solution and the rebound effects of these are more rapid and intense. Therefore these cannot really be regarded as useful for getting rid of obesity.

It has been a common observation that those suffering from obesity are prone to gaining weight much rapidly than shredding it; they should therefore look for a remedy that attacks obesity at its root; as well.

Among the other causes of obesity discussed in the last issue, disorder of hormonal secretion is of maximum concern. Moreover, the disorder of hormonal secretion has deeper roots in the endocrine system and psychology. It could at times be

the side effect of synthetic medicines or physiological disturbances caused by anti-contraceptive pills, steroids, or by pre-menopausal fluctuations, etc. But, more complicated are the cases of psychological aberrations and emotional complexities.

For example, perturbation in secretions from the thyroid, pituitary and pineal glands generates many psychosomatic problems and also leads to uncontrollable loss of weight or, on the contrary, acute obesity. These and other endocrine glands are very sensitive to mental and emotional states. Emotional shock, suppression of loneliness in childhood or adolescence also lead to hormonal disturbances in the young age which often give rise to, among other health problems, obesity; hidden tensions are also found to be significant causes of obesity. In view of this, the healthcare approaches that focus on the emotional core and the mind-body system as a whole and do not cause any disturbance in the natural neuro-chemical, hormonal and physiological processes appear to be more suitable.

Ayurvedic scriptures advise several methods for uprooting obesity and also provide feasible ways for sustaining healthy and hearty life. These include easy-to-adopt disciplines of food, eating habits and living style and naturally effective medicines like *rasayanas* and decoctions prepared with the help of selected herbs/plant medicines. *Yagya*-therapy is prominent among the Ayurvedic methods of curing obesity. These modes of medication and healing applications cited in ancient Indian healthcare literature have also been found effective as per the findings of some modern laboratory experiments and clinical trials conducted at the Brahmvarchas Research Centre and the Dev Sanskriti University, Shantikunj, Hardwar. We shall cite some of the herbal/plant medicinal preparations in this regard.

***Medanāsaka Kwātha* (Fat-destroying Decoction):**

Ingredients: Equal quantities of *Ānvalā*, *Haradā*, *Bahedā*, *Giloya*, *Nāgarmothā*, *Tejapatra*, *Citraka*, *Vijayasāra*, *Haldi*, seeds of *Circiṭā* or *Apāmārga*.

Method of Preparation and Dose: Mix the above ingredients in equal proportion in dry form. Prepare a coarse powder by adequate grinding. Keep the powder in an airtight container. As an average dose for an adult, every day, fresh decoction prepared with five teaspoons (about 15gm) of this herbal powder in half-liter water should be used. Soak 15gm of the powder in half a liter of water at night. Boil it the next day morning. The flame of the burner or stove should be kept mild. It should also be stirred in between to avoid burning. Boiling should continue till the solution reduces to its one-fourth. When it cools down to normal (room) temperature, it should be filtered using a fine, clean piece of cloth. Half of this filtered solution, mixed with about a teaspoon of honey should be drunk empty stomach in the morning between 8 am and 10am and remaining half should be taken with one teaspoon of honey between 4 pm and 6 pm the same day. Fresh decoction should be prepared for every day.

Honey should be pure; otherwise the decoction should be taken without it, as the sugar mixed, adulterated honey is not good for health. Likewise several other Ayurvedic medicines and the diet norms as recommended by the doctor should also be taken and observed for best results. In general, as it is well known in the case of obesity, fried and oily food, use of cream, cheese and lavish desserts and dry fruits should be strictly avoided. Fresh, green leafy vegetables and fibrous food should be taken instead. The morning dose of the above decoction should be taken empty stomach and nothing should be drunk at least for half-an-hour after taking this dose; nothing should be eaten until an hour after this dose. The duration between eating or drinking something (other than water) and taking the second

(i.e. the afternoon) dose, should be at least an hour before and after taking this dose.

If this medication is continued with diet and exercise norms as given below, the positive results begin to show fast. Within a month a fat chap would see significant reduction in his fat and body-weight and would feel fit, energetic and active.

The following 'anti-corpulence' herbal medicine restrains the production of fat, helps decomposition of hydrocarbons and production of useful proteins and easily removable juices without disturbing the healthy metabolism. It can be taken with or without taking the decoction. This together with the decoction is usually advised for those who cannot do sufficient physical exercise or cannot be regular in it because of acute obesity or some other constraints.

Sthaulyahara (Anti-Corpulence) Powder:

Ingredients: Ten grams (10gms) each of the following: *Sauntha*, *Pipala*, *Kālī Mirca* (Black Pepper), root of *Pipala*, *Ānvalā*, *Haraḍa*, *Baheḍā*, *Cavya*, *Citrakamūla*, *Kālī Jiri*, *Bakucī Bīja*, seeds of *Circiṭā* or *Apāmārga*, *Vāyavidang*, *Sendhā Namaka*, *Kālā Namaka* (Red or Rock Salt), *Sādā Namaka* (Common Salt), *Yavakṣāra* (a carbonate of potash; potasii carbonas), *Kāntalauha Bhasm* (Ayurvedically processed 'ash' of a special kind of ferrous ore).

Preparation and Dose: Mix all the eighteen ingredients in pure dry form. Grind the mixture into fine powder. Keep this powder in airtight glass bottle or any other airtight glass container. The average dose of this powder to be taken twice a day is — about half to one gram (half a teaspoon) in the morning empty stomach and same dose in the evening at least an hour before dinner and an hour after eating anything else. It is advisable to take this dose of the anti-corpulence powder with two teaspoons of honey. However, if pure, natural honey is not available or is not affordable, it can very well be consumed with little water.

The diet restrictions remain as in the case of using the decoction; that is, fried and high calorie stuffs should be avoided. An ideal diet is described below. This should be adopted as far as possible in general and is a must in case the disease (obesity) is very advanced or its cause is so intense that no other medication has been effective despite diet restraints. In any case one should drink sufficient water (minimum twelve glasses per day for an adult).

Ayurveda also advises that, except for heart patients or patients having other serious problems, every adult should take water empty stomach to its full capacity every morning. At least one glassful of water should be consumed 5-10 minutes before taking meals. The amount of water drunk during and immediately after meals should be kept to a minimum – say few gulps to keep the throat wet. At least one glassful or two of water should be drunk at a slow pace after about an hour after the meals. This simple practice prevents acidity and also helps reducing obesity. Pure drinking water is a rich source of energy and of many vital minerals and vitamins. It is also a necessary medium for many important biochemical reactions including those of metabolism and ionic balance. It thus helps freshening the brain as well. So consuming it in substantial amounts is generally good for healthy and hearty life.

Regular adoption of this medication starts showing positive results in six to seven months' time in general. Though at a slow pace, this medicine uproots the cause of obesity forever. Most importantly, it does not have any side effects or risk of prolonged use.

Ideal food for best effects of the herbal/plant medicinal decoction and powder medication described here is an appropriate combination of some of the following items as per their availability in the season: *Chapattis* of Barley; wheat cereals in coarse form (porridge) well cooked in steam, a little amount

of rice (cooked using old grains of rice), *kodo*, *sanva*, *neevan*, *priyangu*, *kulathi*; Grams/pulses like *chana* (black gram), *masur* (red lentil), *munga* (green gram), *arhar* (yellow gram); vegetables (in substantial amounts, cooked in pressure cooker with no or very little oil and minimum amount of fresh spices like black pepper, ginger, green chili, turmeric and mineral salt) such as – *patta gobhi* (cabbage), *padval* (round gourd), *torai* or *lauki* (green gourd); *gilki* (green legume of the family of green gourd), *chaulai* (kidney-bean), *palak* (spinach), *methi* (fenugreek) green leaves, *muli* (radish) and *muli-patta* (green leaves of radish); *deshi gajar* (Indian carrot), *baingan* (brinjal), *kachcha kela* (raw banana), *karela* (bitter gourd), *kakadi* (cucumber), *adarak* (ginger); *pudina* (mint leaves); fruits like *angoor* (grapes), *santara* (orange), *mausambi* (sweet lime), *jamun* (black berry); and other supplements like cream-free and butter-less butter-milk or whey (*chācha* or *maṭhā*) little amount of pure natural honey.

For quick results, minimizing the chances of lethargy and re-accumulation of fat and for generally fit and healthy body and mind, one should also give include long walks and/or some physical labor and balancing relaxation exercises in daily routine. Creative exercises like gardening, swimming at least once or twice a week are also good for those who do not have any health problems in doing so. As per one's circumstance, time-schedules and health, suitable *yoga-āsanas* and *prāṇāyāms* should be practiced for best effects. The "Pragya Yoga" taught at Shantikunj, Haridwar is an excellent package found useful for most men and women.

(Details could be found in the CDs and books available at Shantikunj, Haridwar. Contact: emd@awgp.org or abroadcell@awgp.org).



Innovative Experiments: Promising Start

Dr. Kane^[4] of Pune has recently devised an innovative method of preparing herbal super-extracts in edible oil. The extracts display the characteristic therapeutic properties of the base biomass, but the dose required is reduced by a factor of 200-1000. He has in collaboration with Chem. Engg. Dept, IIT Bombay also initiated a research project on *Bhasma* that would link Nanotechnology with Ayurveda. The National Chemical Laboratory (NCL) Pune is investigating the structural transformation of metals in the Ayurvedic *Bhasmas* by using advanced spectroscopic and electron diffraction techniques like, UV-Vis, TEM and XPS.

A group of scientists at the University of Pune, has been working on genomics and Ayurveda and herbal drug discoveries^[5-6]. This group in collaboration with the C-DaC, Pune has also taken up a futuristic project on development of algorithms and machine-learning and diagnostic software (AyuSoft) based on understanding of the methods of diagnostics (*Nidaan*) and treatment (*Chikitsa*) described in ancient Indian treatises.

A unique mode of Herbal Inhalation therapy is *Yagyopathy* or *yagya*-therapy. The scriptural paeans on *yagya* (fire ritual with herbal preparations) elaborate its tremendous potential in environmental purification as well ^[1].

In the process of *Yagya* the desired herbal/plant medicinal preparations are sacrificed in specific measured quantities in the holy fire (of special kinds of medicinal woods in a specially designed *kunda*) for specific period of time with rhythmic chanting of Vedic hymns (*mantras*). Different kinds of medicinal preparations and types of *mantras*, etc are described in the scriptures for *yagya*-therapy against different kinds of diseases

and psychological ailments and disorders. Several kinds of *yagyas* are also most suitable for maintaining normal health and vigor and for preventive purposes – against epidemic, air-water born viral infections, etc^[1-2]. The medicinal and healthy nutritional preparations processed in *Yagya*-fire are spread in the surrounding via the medium of essential oils of plants (medicines) and volatile phytochemicals and thus serve multiple purposes of multi-drug administration along with those of adjuvants, mass medication, collective healthcare, immunization of surrounding area, etc. The healthy effects of *yagya* on vegetation in the surrounding area and use of its ashes as medicines and fertilizers is also described a great deal in the Vedic scriptures. Incorporation of *yagya* in every Vedic sacrament (esp. the *Shodas Samskaras*) remarks its positive impact on human psychology. Its use in sacraments like the *Punsavan Samskar* (performed for the health and vigor of the foetus in mother's womb) indicates its potential to induce medicinal and healthy effects at the gene level as well.

Thus it appears most relevant and important today to reinvestigate the potential of *Ayurveda* and *Yagya* towards path-breaking innovations in modern medical and pharmaceuticals towards minimal cost, eco-friendly, risk free medication and sustainable health care. Also in view of the fact that the climate, nature of diseases and body-functions, morphology and phytochemistry of the herbal/medicinal plants etc would have changed drastically since the ancient times, there is a need to establish newer guidelines of standardization, manufacture and quality control for Ayurvedic medicines.

Pioneering research on clinical trials and PK studies of *yagya*-therapy has also been carried out here^[3, 7-8]. Further investigations on pharmacological and chemical aspects of *yagya* and scientific assessment of applicability of *yagya* in air-pollution control are also going on under the research projects of Dev Sanskriti University of Shantikunj, Haridwar.

These developments and the scientific research findings of these and other research projects in related areas undertaken in different parts of the world affirm a leading role of *yagya* and other herbal therapies of Ayurveda in providing viable health for all.

In view of its prominent role as an alternative and complementary science of medicine, and its rising popularity worldwide, and considering its proven scope in providing total healthcare with youthful vigor, Ayurveda may well become the leading medical science of the present century. The divine vision of the Vedic *rishis* had seen and discovered the deeper aspects of spiritual wellbeing as well. Knowledge of the predominant role of the five basic elements (*pancha tatvas*) in manifestation of Nature and also in the gross and the subtle bodies of an embodied being and the spiritual philosophy of life incorporated in Ayurvedic scriptures would guide the dedicated researchers to rediscover these aspects in scientific light. Success in this regard would bless the world with celestial boons of Ayurveda and Vedic Spiritual Disciplines.



References:

1. Acharya Shrama S. (1995): *Yagya – Ek Smagra upchar Prakriya*. Pt. Shriram Sharma Acharya Samagra Vangmaya Vol. 26 Akhand Jyoti Sansthan, Mathura; UP, India.
2. Brahmvarchas (2001): *Ayurved ka Pran – Vanaushadi Vigyan*. Publ. Sri Vedmata Gayatri Trust, Shantikunj, Haridwar.
3. Joshi R. R., Raghuvanshi M. and Pandya P. (2006): *Yagyopathy Vs Oral and I.V. Drug Administration: Evaluation for Pulmonary Tuberculosis using Compartment Modeling*. J. Biological Systems Vol. 14(3), pp. 463-489.
4. Kane S.G. (2004): Reinvestigating Ayurveda. Update – News Letter of Industrial & Consultancy Research Centre, IIT Bombay. Issue 2/2004. Pp. 6-8.
5. Patwardhan B. et al (2004): Ayurveda and Natural Products Drug Discovery. Current Sci. Vol. 86 (6), 789-799.
6. Patwardhan B. et al (2005): Classification of Human Population based on HLA Gene and The Concept of Prakrati in Ayurveda. J Alt. Compl. Med., Vol. 11 (2), 349-353.
7. Raghuvanshi M., Pandya P. and Joshi R. R. (2004): Yagyopathic Herbal Treatment of Pulmonary Tuberculosis Symptoms – A Clinical Trial. Alter. & Compl. Therapies. V 10 (2), pp. 101-105.
8. Raghuvanshi M. (2006): Some Investigations into Chemical and Pharmacological Aspects of Yagyopathy – Experiments on Pulmonary Tuberculosis. PhD Thesis, Dev Sanskriti University, Haridwar.